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ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

By E. ANDREWS, A. M., M. D.,

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LECTURE SECOND.

GENTLEMEN:—In my first lecture I gave you an account of the organization of the Medical Department of the United States Army, of the mode of admission into it, and also of the duties of the Surgeon in examining recruits offered for the service.

To-day we treat of more important topics. Many a gallant army, unsmitten by the sword, unopposed by the enemy, has succumbed, and fled in disgrace before invisible foes, whose onset the physician alone knows how to guard or meet. Fortified cities have been taken by pestilence, while besiegers thundered at the gates in vain. Campaigns have been broken without a battle, by cholera and plague; and even when these extreme disasters have not occurred, it has, from all ages, been true, that disease, and not the sword is the chief agent of destruction which thins the ranks of war.

The diseases which thus work the ruin of armies, are of kinds which, by care, may be *effectually prevented*; hence,

one of the most important duties of a Military Surgeon is to give advice respecting

THE SANITARY MANAGEMENT OF THE ARMY.

In war, the curing is of necessity subordinate to the killing department; hence, even the Surgeon-General will not often be allowed to change the march, or locality of troops, for the sake of their health. Nevertheless, the medical officer may give the most important information on this subject to those who direct the troops, and in this way save thousands of lives, which otherwise would have been sacrificed to improper management, unnecessary exposure, and insufficient care. For this reason the Military Surgeon should study *Hygiene* in its every possible application, and become competent to instruct the other officers. He should not only be able to treat the sick and the wounded in the camp, but he should also be competent, at the commencement of the campaign, to point out to the commanders the kinds of disease to be expected, the possible severity of their onset, the places where they will be most prevalent, and the particular months in which they will make their attack. Then, also, he should be competent to show how these evils can be mitigated or prevented; and what particular supplies of food, clothing or shelter are required for that end.

FOOD AND DRINK OF THE ARMY.

The rank and file of all armies are supplied with an exceedingly simple diet, consisting of little more than bread and meat—the latter generally salt. The daily allowance of food for each man is called his “ration,” and is as follows:

Bread or flour.....	18 oz.
Or hard bread.....	12 oz.
Or corn-meal.....	20 oz.
Also Beef.....	20 oz.
Or pork or bacon.....	12 oz.

Besides these there is a small allowance of rice, beans, sugar, coffee, vinegar, salt, soap, and candles. The articles of diet, therefore, are limited in number, hence, if there is any failure in the quality or quantity of the rations, it tells with ruinous effect on the health and spirits of the soldiers. It is the duty,

therefore, of the commander in providing for the health of the army, to see that the food of the men shall in no case be scanty or bad. So far as possible, fresh meat should be given out instead of salt. A body of men kept exclusively upon salt food, will inevitably be attacked with *scurvy*. This seems not to be sufficiently understood by many military men. The impression is, that scanty diet, hard toil, and absence of vegetables are the principal causes of *scurvy*, and not salt food. This is an error. *Scurvy is the specific effect of an excess of salt in the system, just as much as mercurialization is of mercury, or iodism is of iodine.* Starvation, hard toil, and absence of vegetables, all combined, will not produce it, if the little food that is eaten be *fresh*. This was well shown in Dr. Kane's famous expeditions to the north in search of Sir John Franklin. Dr. Hayes, who was of the party, informs me that, though the Esquimaux often suffer extremely from starvation, cold, and other hardships, they never have *scurvy*, because the little food they do get in times of scarcity is *fresh meat*; while the crews of vessels which frequent these waters, living on salt food alone, are afflicted beyond measure. At one time Dr. Kane's command was divided into two parties, one of which remained on the ship with plenty of *salt food*, and a good shelter, with a supply of fuel. The other made an expedition on the ice, slept out of doors, got out of provisions, and had to live solely on some very scanty supplies of fresh walrus-meat, obtained from the Esquimaux. In this case the sheltered and well-fed party in the ship, living on salt food, was smitten with the *scurvy*; while the famished and overworked company on the ice, having only fresh flesh diet, without any vegetables at all, were entirely free from the disease.

If, then, the army is kept exclusively on salt food, and the men have no opportunity of getting anything else, *scurvy* will inevitably appear; nor will the Surgeon be able to prevent it by doling out little glasses of lemon juice, or other supposed specifics for the disease.

If the circumstances of the campaign prevent, for any long time, the obtaining of fresh food, the soldiers should be taught the art of freshening their meat before cooking it, by steeping it in cold water; and at the earliest possible moment, the

continuity of the salt supply should be interrupted, by the slaughter of fresh beeves. Salt meat may be well freshened by cutting it into pieces of about four ounces and letting it stand in the kettles over night, covered with cold water. The water will extract most of the salt and leave the meat more suitable for cooking. In border warfare upon the western plains, a very excellent resource is the *pemmican* of the Indians and the French traders. This consists of buffalo meat dried fresh and beaten up with the fat. It is portable, keeps perfectly any length of time, and may be kept on hand for an occasional meal when other fresh supplies fail. Of course, all opportunities should be embraced to supply the men with vegetables; they are very important to health, but I wish you, gentlemen, to understand that the chief cause of scurvy is *not the absence of vegetables*, but the presence in excess of chloride of sodium. The modes of cooking practiced by the soldiers have a considerable effect on their health, and the Surgeon should be competent to give complete and practical directions upon the subject. In the Crimean war, the famous cook, Soyer, was sent out by the government, and succeeded in effecting great improvements in this department. The following are some of his directions:

SOUP FOR FIFTY MEN.

"Put into the boiler, $7\frac{1}{2}$ gallons of water; fifty pounds of beef or mutton; three pounds of rice; eight pounds of fresh vegetables; ten tablespoonfuls of salt; one tablespoonful of pepper. Simmer three hours, and serve. Skim off the fat, which, when cold, is an excellent substitute for butter.

PLAIN IRISH STEW FOR FIFTY MEN.

Cut fifty pounds of mutton into pieces of a quarter of a pound each; put them into the pan; add eight pounds of onions, twelve pounds of whole potatoes, eight tablespoonfuls of salt, three tablespoonfuls of pepper; cover all with water, giving about half a pint to each pound; then light the fire. An hour and a half of gentle boiling will make a most excellent stew. Mash some of the potatoes to thicken the gravy, and serve. Fresh beef, veal, or pork, will also make a good stew. Beef takes two hours doing.

This I know to be a most excellent dish. It can always be prepared upon the march, in time for the men's dinner or supper.

FRENCH BEEF SOUP—CAMP FASHION.

Put in the camp kettle, six pounds of beef, cut into two or three pieces, bones included; three-quarters of a pound of plain, mixed vegetables, as onions, carrots, turnips, celery, as can be obtained, or three ounces of desiccated vegetables; three teaspoonfuls of salt, one of pepper, one of sugar; eight pints of water. Let it boil gently for three hours; remove some of the fat, and serve.

The addition of half a pound of bread, cut in slices, or one pound of broken biscuit, well soaked in the broth, will make a very nutritious soup. This is enough for six or eight people. The quantity required for a company is easily calculated.

STEWED SALT BEEF AND PORK FOR ONE HUNDRED MEN

Put in a boiler of well soaked beef, thirty pounds, cut in pieces of a quarter pound each; twenty pounds of pork, cut up; one and a half pounds of sugar; eight pounds of onions, sliced; twenty-five quarts of water; four pounds of rice. Simmer gently for three hours; skim the fat off the top, and serve.

If soup is not made, the beef may still be boiled, but in a different way. Soup should be made by beginning the process with cold water at first, and then simmer at 160° till done.

The general rule is, that roasting is to be done quickly, and boiling slowly.

In roasting, the loss of beef is nineteen, mutton twenty-four, but their chemical constitution is not changed. The loss is made up of water evaporated, and fat melted and mixed with gravy. But in boiling, the loss, though less in amount, is more serious in quality; it is made up of fat, gelatine and water, with some albumen and hematosine; and if salt is used, potash is likewise lost. Therefore the broth should be eaten.

The bean soup, made by soldiers in the army, is the best I have ever eaten. They prepare it by soaking the beans all night. The ration of pork is boiled in it, and any fresh or desiccated vegetables they can procure. Potatoes and onions are great favorites with them. It is seasoned to the taste with salt and pepper."

In tropical countries, the men occasionally suffer from improper indulgence in various fruits; but as a general rule, a

large army will not be able to get enough of them to be in any serious danger from excesses of this kind.

The supply of suitable water for drinking is also important. If encamped by marshy ground, the men should be prevented from drinking the deleterious vegetable infusion, dipped up from the swamp. Good water should, if necessary, be brought even from a distance by teams. In the southern parts of our great west, the inhabitants make much use of rain water for drink, believing it to be healthier in their country, than the water of the springs and wells. It will not often be the case that armies, however, can avail themselves of this resource, though small detachments may find it convenient and safe to follow the custom of the country in that respect, and supply themselves from cisterns. The water of the Mississippi will, of necessity, furnish the drink of great bodies of men during the present war. From the confluence of the Missouri downwards, this stream presents a foul appearance, highly alarming to men who are accustomed to drink from the crystal springs of the north. The stream has the exact color of the water which flows in the gutters of a dusty wagon road after a thunder storm. If a pailful of it is dipped up, it will deposit a half an inch of mud upon its bottom in settling. The unhealthy appearance of this water is, however, a delusion. The sediment in it is mostly insoluble mineral matter, which is deposited upon filtering or settling, and there is actually much less in it that is unwholesome than in many hillside springs. The inhabitants of the banks of this great river, after full experience, pronounce its muddy waters a perfectly safe drink.

Coffee has been highly praised as a daily drink for soldiers. I do not think it has any sanitary advantage over water, except that it gives an air of comfort to the camp, and makes the soldier more cheerful at his meals. Alcoholic liquors have long been a part of the regular supplies of our army, but they have latterly been discontinued, except in cases of unusual exposure, and coffee and tea are substituted in their place. In cold climates it is probable that the daily use of alcohol is less injurious than in the tropics; but in warm regions there

is no doubt that the daily dram causes many a stout soldier to succumb to the deadly climate. Men who drink habitually are not as hardy under climatic exposure as others. Almost all the cases of sun-stroke occur to habitual drinkers; and in every other climatic disease they are the first victims. If the Surgeon's professional opinion, therefore, is required, it should be to the purport that alcohol in a hot climate is deleterious, and that the men are physically better without it. If a stimulant is demanded, coffee is undoubtedly to be preferred.

On a march, the canteens of the men should be frequently filled with water, in order that by often sipping it they may be prevented from suffering excessive thirst, and not be under a temptation on arriving at a stream to rush in and drink to a fatal excess. They should be cautioned after great and exhausting efforts against this imprudence.

CLOTHING.

No arbitrary rules can be given under this head. The clothing should be adapted to the climate. In cold regions warmth is to be secured, and in the tropics coolness sought after. The stiff adherence in a climate like that of India, to a dress, devised for warmth in England, is absurd; and a similar error should not be committed in this country. In the hot summer of our gulf States, the usual dress of the soldier should be of thin porous woolen, loose and free, and not absurdly buttoned to the chin. Heavy caps, hats and helmets may be tolerated occasionally on parade, but should not appear in battle, nor on a march. The soldier should have a single substantial blanket, strong shoes, and woolen stockings. The hat, whatever it is, should be porous and allow free ventilation between it and the top of the head. On marches, and in battles undertaken in hot weather, a wet handkerchief placed within the hat keeps up an evaporation and goes far to protect the person from sun-stroke. It is desirable that some other shelter from the sun's rays should be attached to the dress. The Arabs of the desert always wear a sort of cape or veil covering the entire scalp and back of the neck. The British soldiers in India found it necessary to

devise a similar thing, and probably it will be required in this country also. A suitable cap-cover may be made of any white or light colored fabric, which does not, like black, grow hot in the sun. It should cover the whole top, sides and back of the head, and hang down as far as the shoulders behind. This will be found to materially diminish the mortality from sun-stroke.

The proper dress for a soldier is a difficult problem in some respects; and the Surgeon will seldom see his own wishes in the matter, put in execution by the government; nevertheless, he should be prepared to state clearly the true principles involved in the hygiene of clothing.

ARTICLE II.

COMMENTS on "*Notes relating to the Extirpation of the Parotid Gland,*" by Prof. Brainard, M. D., in the *Chicago Medical Journal* for October, 1860.

REMARKS on the *Surgical Treatment of Spina Bifida*—Summary of Prof. Nelaton's *Clinical Lecture on the Injection of Solution of Iodine in cases of Hydrorachitis, after the Manner employed by Prof. Brainard.*

By TITUS DEVILLE, M. D.

We suppose we must consider these notes of Prof. Brainard as a sort of rejoinder to our critical essay published in the *Chicago Medical Examiner*, but they are really so weak and so little is advanced in them in reply to the arguments then brought forward, that we conclude therefrom that Prof. Brainard is utterly incapable of meeting them with powerful opposing facts deduced from the sound knowledge of anatomy and pathology, and the experience of the best modern surgeons. We are obliged, therefore, to content ourselves with combatting the sophistry so easily detected in these "notes," and refer your readers to the essay in question, to enable them more fully to arrive at a correct judgment of the real merits and objects of the discussion.

Prof. Brainard cites the opinions of Professors Granville, Sharp, Patteson, Mutter, Vidal and Gross, on the *possibility* of

the extirpation of the Parotid. Now we here protest against the inference with which Prof. Brainard would seemingly wish to blind his readers: That the possibility of the extirpation of the Parotid had been called into question by us. We did not assert the utter impossibility of its removal; but contended that it was a dangerous operation and not easy of accomplishment, in contradiction to the opinion of Prof. Brainard. We advanced the opinion that the Parotid was remarkably exempt from malignant disease; when affected, we believe it is from disease being propagated to it from other structures.

According to Prof. Brainard, this gross error into which we have fallen, ought at once to be detected by any medical practitioner, and yet we find that Velpeau, Ferguson and Liston, the great practical authorities on which such an opinion was founded, emphatically deny that they have ever seen disease of the Parotid; that what was supposed to be disease of the Parotid, was not in reality such, but only of one or more of the lymphatic glands in this region, and which were comparatively easy to remove and unattended with any great danger from being limited by a cellular cyst.

In addition to the strong testimony on this point given by the three greatest surgeons of modern times, we have also the negative evidence of the most recent writers on pathology, such as Houel, Wilks and Bennett, who do not cite one case of disease of the Parotid (excepting enchondroma, which is a rare malady,) which, coupled with the non-existence of real specimens in some of the greatest museums in Europe, must make any intelligent medical man hesitate before he receives the number of ninety-one cases, compiled by Prof. Brainard as bearing the slightest impress of truth, and which cases are to be considered in no other light than as so many mistakes as to the real nature of the malady. It becomes totally another question when the disease is not limited to the lymphatic glands; in such a case we find all the neighboring parts more or less involved; we cannot then call it *cancer of the Parotid*; the propagation to structures on the side of the neck, lower jaw, and deep-seated parts, prevent such a denomination. Most medical men have seen such cases.

Moreover, to prove from another point of view, the proneness of the lymphatic glands to cancerous disease, and the exemption of the salivary glands, we may cite the submaxillary gland, *which in ultimate structure is like that of the Parotid*, and we fearlessly avow that we have never heard or read of a case of cancer of this gland by any notable surgeon—notwithstanding that we have searched innumerable authorities on this question.

Dr. Paoli referred to in the "Notes," has compiled from a great number of old authorities, cases of supposed cancer and extirpation of the Parotid; as well might he cite testimony, respectable in its day and generation, in favor of any other exploded error; it is only in recent times, that we have been enabled to determine with precision, the nature of those maladies. These remarks apply equally to the cases cited by Prof. Brainard.

We are somewhat surprised and amused at the unreserved manner with which Prof. Brainard cites Prof. Gross as an authority, when it may serve his purpose, recollecting the grave doubts which he expresses on Prof. Gross being considered as perfectly reliable, in a critical review of the learned Professor's work on pathology, in the very number of the *Chicago Medical Journal* for 1859, in which he narrates the cases of supposed extirpation of the Parotid. Finally, the main question which we sustained, seems to have been entirely overlooked by Prof. Brainard, viz: that we contested the interpretation which he put on the operations performed by him in the Parotid region, and that from the description given, we were convinced he had fallen into error on their real nature. We perfectly agree with him that what he *really effected was safe and practicable*, but what he *proposed to do* was very dangerous, and that *he did not remove the Parotid*, because it was not involved in the cases so described.

We here terminate our comments on "*Notes Relating to the Extirpation of the Parotid Gland*," and devote the second part of our communication to a few brief remarks on the injection of solutions of Iodine in cases of Hydrorachitis, after the manner employed by Prof. Brainard.

We are tempted to this step, and believe it will prove inter-

esting to your readers in consequence of some critical remarks made by Prof. Nelaton, at the Clinical Hospital of the Faculty of Medicine, Paris, in his clinical lecture delivered on the 22d of March last.

Having been apprized beforehand that two cases would be commented upon by Prof. Nelaton, in which he had injected solutions of Iodine, we were anxious to learn the opinion of one of the most enlightened surgeons of modern times on such an operation; premising that we were averse to any surgical interference in such cases, further than the mere protection of the tumor, from having had, ourself, considerable practical experience of the evils resulting from various plans which had for their object the disappearance of the tumor.

Theoretically and practically, we do not hesitate to say that in the vast majority of cases active surgical interference is unadvisable; but before we enter into our reasons for such an opinion, let us briefly define the nature of the lesion.

Spina bifida is an arrest of development, in which a portion of one or more of the neural arches is wanting; viz: the laminae and spines of one or several vertebrae, usually situated in the lumbar and sacral regions, but occasionally found in other parts of the vertebral column. Over this region, where the spine is cleft, exists a fluctuating tumor from an abundance of the cerebro-spinal fluid which is there collected; because the membranes enveloping the spinal cord being deprived of the support naturally given by the neural arches, bulge out the skin, and fluid is accumulated, forming a tumor along the middle line of the back.

Reasons, Theoretical and Practical, against Active Surgical Interference.

1st.—The fluid, which forms the great bulk of the tumor, has a conservative action, tending to diminish greatly the effects of any blow or fall on the tumor, (which, when situated in the lower part of the vertebral column usually contains the terminal part of the spinal chord and its nerves,) by equalizing the pressure and preventing the mischief which would ensue from any direct violence to the nervous centres and the nerves which emanate therefrom.

2d.—That any evacuation or absorption of this fluid, whether by means of a fine seton, or by the injection of an irritating solution, exposes the cord and nerves to *immediate danger* from inflammatory action, paralysis, convulsive movements, or other disturbance of the nervous functions, together with their *remote mischievous results*.

3d.—Most surgeons know of examples in which these tumors on being left to themselves do not cause any constitutional symptoms requiring surgical treatment; but persons may and do live the ordinary term of life without suffering any inconvenience therefrom, further than by their bulk.

4th.—Most surgeons know that death frequently ensues from actively interfering with such tumors,—for our own part, we have seen upwards of twenty cases terminate fatally.

To sum up briefly the remarks of Prof. Nelaton, in the lecture referred to, he treated successively of the

Principles of the Operation.—Absorption of the fluid contained in the tumor, thus diminishing the bulk or causing its total disappearance.

Cases to which it is Applicable.—A very small number, where the tumor is pediculated, and the communication can be interrupted between the sac of the tumor and the cavity of the spinal canal, so that the fluid injected shall not pass along the membranes of the cord, and also where the cord is not placed within the tumor. He cited a case of M. Robert, of the Hotel Dieu, in which, whilst injecting such a tumor, the *child died immediately*; at the autopsy the injected fluid was found to have mounted as *high as the medulla oblongata*!

Mode of Procedure.—Great precaution necessary; he detailed the method with the formula employed by Prof. Brainard, showing that the quantity of fluid to be injected should be small, and that the iodine solution should be very weak.

Results and Deductions.—Paraplegia in both cases. He confessed it had been a very unsatisfactory method in his hands; two children previously in a good state of health suddenly rendered paraplegic.—Without positively denying the truth of Prof. Brainard's results, he yet expressed some doubts as to the correctness of all the cases reported.

ARTICLE III.

"THE MIRACLE OF ANÆSTHESIA."

AN INAUGURAL THESIS.

By FRANK W. REILLY, M. D., Chicago.

The doubting Disciple, whose vision required the corroborative testimony of his touch, has, unquestionably, far outstripped his brethren in the number and zeal of his followers. The words of the Hebrew preacher, in their most literal and isolated sense, embody their creed: *We believe* "There is no new thing under the sun;" and to them any attempt to change the manners and customs of their fathers comes in such questionable guise as to warrant their most active incredulity. Unfortunately, too, no experience is impressive enough to be lasting in their doubtful souls; but convinced, if convinced at all, "against their wills, they are of the same opinion still," with reference to every new phase presented by human progress. Faith, even as a grain of mustard seed, is omitted in their constitutions; and we are finally obliged, so widely-spread and so ineradicable is the evil, to admit that antagonism to the New, and blind adherence to the Old, is as much the normal condition of some minds, as is, of others, a healthy progress towards the true and right, regardless of the ruts and grooves of time-honored custom. And the proposition is equally true of all the various branches of human industry, science or art—alike in Medicine and Mechanics.

I have termed this opposition an *evil*,—and yet it may have its important uses—as leading to fuller elucidation, more thorough research—killing off pretension and sham—a sort of natural psychological agency, cutting off those children of the brain, born below that minimum of value, which is a condition of scientific viability, as the Anatomist of Harvard might say. This, however, I do not propose to discuss here, content to know that the history of Medicine furnishes instances of more determined and unscrupulous hostility to innovation, than that of any other Science or Art. The early history of

the Circulation of the Blood, with its chain of contradictions and corrections, linking the centuries, furnishes a fair illustration:—Erasistratus, Galen, Vesalius, Servetus, Columbus, Cesalpinus, Fabricius and his immortal pupil, Harvey—each a step in advance of his predecessor, and all a subject of ridicule, abuse and persecution for that step. The following quotations from the cotemporaneous literature of Harvey, may be interesting and novel enough to warrant their introduction and excuse their length:

Guy Patin, Dean of the Faculty of Paris, about 1660, and who has been recently complimented, possibly justly, as “a wit, and a man of sense and learning,” wrote as follows: “If M. Duroyer knows nothing more than how to lie, and the circulation of the blood, his knowledge is limited to two things, of which I hate one, and do not care for the other. Let him come to me and I will teach him a better way to a good practice of medicine, than this pretended circulation.” “A wit,” certainly,—but “a man of sense”!? And his colleague, Riolan, whom Bartholin called the *greatest* anatomist of the age, wrote to a friend, as follows, *apropos* of the then newly announced discovery of the lacteal circulation:—“Every one must now be making discoveries. Pecquet has done worse; for by his new and unheard-of doctrine of the lacteals and the thoracic duct, he will upset both the ancient and modern systems of medicine,”—and more to the same effect. Indeed, we find this estimable Faculty of Paris, this Medical Inquisition, arraigning before it every unfortunate wight who dared be so much the master of his own brain and its research as to question their infallibility, or to protest against the dogmas of their immaculate conception. Opium, antimony, cinchona, even tea, fell under their ban—this last being characterized as an impertinent innovation. Those who dared exhibit antimony were tried and condemned by the Faculty, a proceeding, which in the words of the learned Dean,—“brought them back to their senses. If,” continues Doctor Patin, “they should be again wanting in their duty, *we* shall not be in *ours*; but shall proceed summarily against them, so that they will be forever expelled from amongst us.”

I may not stop to dwell upon the abuse heaped upon those who undertook to check the use of the lancet, by the disciples of Dr. Sangrado—of whom this very Patin was one of the most ultra, bleeding one patient *thirty-two* times in one attack; himself *seven times* for a cold; his wife *eight times* in the arm and then in the foot, and his mother-in-law only *four times*, because she was eighty years old! “We save more patients with a good lancet and senna, than were ever saved by the Arabian physicians with all their syrups and opiates.” What a fearfully fatal practice the Arabian must have been!

Again, the warfare against small-pox inoculation, by which the mortality of that dreadful scourge, was reduced from *one in four*, to one in *three or four hundred*, enlisted some of the most eminent members of the clerical and medical professions—the one urging its impiety, and the other its impropriety and danger; and so violent was the feeling that Lady Montagu protests that she “seldom passed a day in the first four or five years of the practice, without repenting her patriotic undertaking,” and that she would “never have attempted it, if she had foreseen the vexation, persecution, and even the obloquy it brought upon her.”

Half a century later, Jenner, the immortal, whose lancet, it is claimed, saved more lives than the sword of the first Napoleon destroyed, aroused such a storm of indignation, ridicule and abuse, that clergy, physicians and laity were alike carried away by it—the King, Parliament and Faculties implored to interfere against the “destructive practice of vaccination”—“a gross violation of religion, morality, law and humanity”—and personal violence, even, was offered to its advocates. In *Materia Medica*, the introduction of nearly every important agent; in *Surgery* the ligation of arteries, the flap operation, resection of the hip-joint, etc.; in another branch, the induction of premature labor and craniotomy, as conservative operations. In short, the history of the advent of all great new movements in medicine, as in other sciences, includes, if complete, the record of opposition and argument, so violent and illogical, so obstinate and absurd, as to excite the pity, wonder and ridicule of succeeding generations—themselves, but too often, re-enacting similar scenes.

Arguments, illogical and absurd, have been used in all ages by the opponents of Progress; but it has been reserved to this Nineteenth Century to urge the *desireability and beneficence of pain*, as an argument against the introduction of agents to annul it,—nay, to such extremes have the opponents of this “glad and glorious discovery,” this “Miracle of Anæsthesia” been driven, that, subsequently, they have tacitly, if not expressly denied the existence of Pain! reminding one in the sequence and congruity of their premises, of the defence of the woman, accused of returning her neighbor’s tub in a damaged condition: Firstly, the bottom was out when she borrowed the tub; and secondly, she never had the tub at all!

In the early day of this opposition, and when Anæsthesia was restricted to Surgery, such eminent names as Magendie, Syme, Cooper, Condie, and many others of less note were found advancing such arguments. The distinguished French physiologist thought it “a trivial matter to suffer,” and that “pain has always its usefulness.” Syme thought the pain occasioned, even by the most severe operations, the removal of tumors, amputations, lithotomy, etc., was “nowise unbearable”; indeed he gravely remarks in his report of a case of lithotomy, that “the fatal result was the effect of the removal of a source of extreme irritation in a very irritable system,”—in other words, the pain kept the man alive, and he died when it was removed! The medical literature immediately succeeding the announcement of Dr. Morton’s discovery, or application of a previous discovery, teems with articles reflecting such sentiments; but thanks to such earnest workers and friends of humanity as Simpson and Miller of Edinburgh, Liston, Bell and Snow of London, Flourens, Velpeau and Roux of Paris, Mutter, Pancoast, Gross, Mott, Carnochan, Mussey and others in the United States, such a position has long been abandoned; and while the domain of operative interference has been almost indefinitely extended, its mortality has been decreased, its dread paraphernalia of glittering steel and fearful engine, robbed of former terrors, and Surgery is now no long a synonyme for Suffering.

If the record, ending here, were complete, humanity might congratulate itself, and the medical profession point proudly to this, as one of the brightest pages in its annals. Unfortunately, causes, in themselves, let us hope, temporary and inadequate, have combined to limit, almost exclusively, the use of Anæsthetic agents to the operating table; and in these pages I have proposed to myself to briefly examine these causes, to consider the arguments advanced against Anæsthesia in Obstetrics, and to again present the rebutting testimony of those large minded, active sympathizers with all human suffering, who fully realize the Baconian definition of the true physician—whose “office it is, not only to restore health, but to mitigate pains and dolours.”

I trust I appreciate in some degree the magnitude of the task, and the inadequacy of the instrument; but I reflect that forces are not necessarily commensurate with results, and am further assured by the belief that a reaction is taking place in the obstetrical mind on this point. In proof of this last, I may cite the fact that Prof. Ransbotham, of London, whose name is classic in his branch, so far modifies his opinion in 1856, as to omit, in a great measure, the unequivocal proscription which characterized his dictum of 1851; and it is but fair to presume, in view of this known change, that he has since, still further become convinced of the untenable character of his position. Of the work of Prof. Miller, of Louisville, the result of the experience of over a third of a century's ministration “at the altar of Lucina,” and nearly ten years' administration of Chloroform, I need not speak, save to allude to the marked and increasing favor with which it is being received by the profession. That I do not allude more fully to the immortal discoverer of the process, J. Y. Simpson, of Edinburgh, is due to the fact that his position is fully recognized and undisputed—my purpose here, being to show the changes taking place, either in teachers themselves, or in the reception of their instructions.

The less grateful duty of examining the causes of proscription, involves the highest didactic authority of America—for to this proud pre-eminence in midwifery and its collateral topics

has Prof. Chas. D. Meigs, of Philadelphia, been assigned both by his own countrymen and by the profession of Europe. His position as a teacher, not less than his reputation for learning, skill and success, has been used persistently and uncompromisingly to the exclusion of the wondrous vapor from those who travail in child-birth,—with what success, let the agonized groans and shrieks from the lying-in chambers of five millions American mothers bear witness.

Filling the chair of his speciality in the leading college of the country, with annual classes of over five hundred eager, credulous students, and annual graduates numbering over two hundred,—in the twelve years of his hostility he has sent out upwards of twenty-five hundred practitioners and over six thousand students, imbued with the belief that the administration of chloroform to the induction of insensibility to pain in parturient women, is not only fraught with mischief and danger, but is a violation of both morals and religion. When to professorial influence is added the multiplied editions of his text-books, forming, no doubt, the entire obstetrical literature of numerous practitioners,—his further influence as a clinical instructor, and as member or officer of numerous other organizations, in all of which he is brought in contact with new minds, only too willing to receive, from his personal presence, courteous and winning to a degree, a favorable bias towards one of whom so much is said,—when all this is duly considered, is it any wonder that he should have succeeded in moulding the sentiment of the profession, on this point, so thoroughly as he has done?

Assuming this to be true, and that to the Obstetrican of Philadelphia is due the tabooing of this Miracle of the Age, it becomes necessary, first to examine, briefly, the weight and importance of his arguments against the practice; and secondly, to answer them as well as I may, in the light of the observations and experience of its advocates.

Before doing so, however, it may be but simple justice to notice an argument, which may be advanced by those seeking to deny the charge that Prof. Meigs has been allowed to do their thinking for them, or that they have always unquestion-

ingly pinned their faith upon his sleeve, viz: the fact that the profession ignores the learned Dr.'s theory of the "*Heart Clot*," and that his definitions and theories of Conception, Pregnancy, etc., given with so much emphasis of spaced words and epigrammatic diction, are taken only *cum grano salis*. Grant that the profession does not endorse these and kindred views; the very promulgation of such views proves the fallibility of their author; and if Prof. Meigs could issue and adhere to such a theory as that of the "*Heart Clot*," based, as it is, upon a palpable misapprehension of an effect for a cause; or could advance such definitions of two of the most important functions of 'the sex' as to logically yield such paradoxes as these:—*a woman may be pregnant before she conceives; abortion may occur before conception*,—if these are among his teachings, why may he not be equally in error regarding a matter, which he positively refuses to investigate?

The objections of Prof. Meigs to the induction of Anæsthesia in Parturition, as embodied in 1848, in a letter to Prof. Simpson, and as subsequently set forth, in connection with said letter, in his "*Science and Art*," may be summed up under two heads; 1st, *Its undesireability and impropriety*; and 2d, *Its danger and evil results*; and these include the items of all the arguments of its opponents worth notice. Indeed, I might very properly, and perhaps profitably, omit any notice of the counts under the first head; but from the prominence which has been given them, from time to time, I prefer a brief consideration of them.

The opponents of Anæsthesia allege, firstly, and most prominently, that its induction is undesirable and improper, for that the pain of labor "is a most desirable, salutary and conservative manifestation of life-force," (*Meigs*): and is "an essential element in the function of parturition," (*Ramsbotham*).

The first may be admitted, in part; the second, denied *in toto*.

That "an infinite Wisdom has contrived pain for our protection," has made it "the grand preserver of existence," "the sleepless sentinel that watches over our safety," I very

readily admit. The burnt child that dreads the fire, and the juvenile Davy, lustily kicking off the historic crustacean that would dine upon his toes, are alike the subjects of its beneficent, though apparently severe dominion; the "manifestation of life-force" in both instances, is, indeed, "most desirable, salutary and conservative."

The pain of parturition, however, is a "manifestation of life-force," "desirable, conservative and salutary" to this extent, no more: That it informs us, in the first stage, that the contractions of the fundus and body are pressing the child's head upon the neck and mouth; it is simply an index of the fitful conflict going on between the "contentive and expulsive faculty" of the former and the "retentive faculty" of the latter; and no more an "essential element in the function of parturition," than the clatter and noise of the printing press is an "essential element" of the diffusion of knowledge. In the second stage it possesses hardly this doubtful merit; and to urge any claim to favorable consideration of it in the third stage, is to imply that those fortunate women who escape without "after-pains," fail (to use a homely but very Yankee figure), "to get the worth of their money." These pains are not alone useless, but pernicious since they do not fulfil the legitimate office of Pain, which, according to the highest authority on the subject, Sir Charles Bell—before quoted, is that of Warning—warning that tissues are endangered, the integrity of organs threatened—warning to the end that the danger may be averted and relief afforded. But relief, in labor, can be afforded only by Nature in the slow process of the removal of the foreign body—the fœtus. Therefore, the pains are useless; and inasmuch as they tend to excite, exhaust and depress the patient they are pernicious. Why, then, not annul these pains—useless, yet so injurious? Oh, because, say the opponents of Anæsthesia, their wits sharpened by the force of necessity, because Pain is two-fold, *physiological* and *pathological*; and the latter only comes within the province of the physician. And so, labor-pains being the result of the "culmination of the female somatic forces," hence, "physiological," it is improper to interfere with them. And, besides,

in this new view of the subject, they don't hurt near so much—at least, Prof. Meigs don't feel them so acutely, as when he wrote, with the sentimental *naïveté* of a Michelêt his chapter on Labor and his Letters to his Class, from whence these extracts: "And the word (*Labor*), is highly expressive of the fatiguing, violent and painful struggles and efforts." "The sensation, under these circumstances (the last expulsive pains) is represented as absolutely indescribable, and, certainly, as comparable to no other pain." And again, when, in a generous glow of tender gallantry, he asserts that "Man cannot suffer the same pains as Woman"—and querying "What do you call the pain of parturition?"—justly answers, "There *is* no name for it, but *Agony!*"

This is certainly clear and unmistakeable; yet let us once again quote from the same high authority, and this time as touching our modern Cartesian doctrine of Pain:

"The pain of a labor consists chiefly, though not solely, in the pain felt at the cervix uteri, and is the result of *violence* done to the *texture* of the cervix and other parts, etc."

"If a man strikes you a blow with his fist, and knocks you down, he hurts you and not himself; in the same way the fundus and the corpus uteri, when they strike to rive open and overcome the resistance of the cervix and os uteri, *hurt* them, *excite pain* in them, and sometimes even *tear them to pieces*," etc.

Very well; but how does this violence, these blows, riving open and overcoming, hurting and exciting, even tearing to pieces, these exquisitely sensitive textures, how does this description comport with the following, written since Anæsthesia has so modified Prof. Meigs' views, and awakened to a spasmodic, ephemeral vitality, the Rowleys, Moseleys and Munroes of Jenner's time, and the scores of others, of every age, saved only from a charitable oblivion, by the unenviable notoriety which attaches to them, as opponents of the progress of their respective periods: "I contend that it is to an exaggerated notion of the nature of labor-pains, we owe the too frequent use of ether in our art." "The representations that have been made by the friends of Anæsthesia, of the harrowing distress

endured by women in childbirth, do not consist with the general state of facts in the case." And again: "But in midwifery, to which a long and extensive practice has enured me, and rendered me a familiar, dispassionate witness of its various forms and phenomena . * * * I have found that women provided," etc., etc. I wish to observe here, that Professor Meigs claims only to have found that "women, sustained by cheering counsel and promises, and carefully freed from the distressing element of terror, could, in *general*, be made to endure without GREAT complaint." A proposition so carefully guarded and limited by provisions and conditions, that its apparent force is very materially weakened to the careful reader. The first extracts, however, were written before the Anæsthetic innovation was dreamed of, even by the most sanguine; and Prof. Meigs, in his later position, as "a familiar and dispassionate witness," may, in the words of a distinguished Illinois Senator, "object to bringing in issues of individual consistency." But until he reconciles his dicta, or shows ground for the rejection of his former teachings, endorsed by the profession, and harmonizing with the views of all leading authorities, we must admit Labor-Pain to be as severe, and injurious, and as legitimately the object of the physician's concern, as the pain caused by any other, the most purely *pathological*.

Well, but, says Prof. Meigs, the patient's ability to counsel the operator in instrumental cases, is too valuable to be abrogated; the "patient's answer, 'yes' or 'no' to the accoucheur's query 'does it (the forceps) hurt you?' is worth a thousand dogmas and precepts as to planes and axes and curves of Carus." To treat this argument seriously, would be to impeach the skill and intelligence of Prof. M., as it would that of the Surgeon, who should appeal to the feelings of his patient to enable him to distinguish between the artery he was ligating and its attendant nerve. And without any attempt to show the worthlessness of a guide, predicated on the feelings of a woman, whose "mind is strained to the highest tension," and who requires "good intervals of rest," for her "moral relief," I am inclined to believe with Prof. Simpson, that if this

"really formed the safest and most trustworthy guide in the operation," and was honestly "worth a thousand dogmas and precepts," Prof. M. would not have omitted all allusion to it in his published works; the more especially, as Simpson observes, with quiet sarcasm, that "all other authors omit notice of it." I cannot refrain, however, from calling attention to the case cited by Prof. Meigs on page 551 (*Obstetrics; the Science and Art*, 1852), and asking if such accident would have been possible in the motionless slumber of Anæsthesia? and if not, what becomes of the charge of undesirability? Here, the patient's ability to dictate to the Surgeon by her sensations, was, it would seem, a thousand times more than counter-balanced by the conscious endurance of such pangs as to cause her to "throw up the pelvis," so "violently and unexpectedly," that the operator, (Prof. Meigs, himself,) was unable to prevent the "very severe laceration of the perineum," from which effects, we are candidly told, it took her three weeks to recover. Would Prof. M. have us believe, that his knowledge of the anatomy of a portion of the human frame, he has made a life-long study, was so imperfect and unreliable, that without the "safest and most trustworthy diagnosis" of his patient's sensations, he would inflict such laceration and injury, in the introduction of the forceps, as it would require three weeks to recover from? If not, is this charge tenable? Indeed, are not both arguments, and the charges they are meant to sustain, disproved over and over again, by Prof. Meigs' own writings?

Not doubting the answer, I pass to the charge of drunkenness as a condition of chloroformal insensibility—a charge preferred by Ramsbotham in 1851, in the strongest manner, and urged with much eloquence and wealth of expletive; subsequently considerably modified, and pruned of its appeals to "moral obligations," etc., but adopted by Prof. Meigs in his edition of '52 in the following language: "But I cannot avoid the feeling of astonishment which seizes upon me when I read the details of cases of midwifery, that have been treated during the long, profound *drunkenness* of etherization."

It is worthy of remark, that Prof. Meigs makes but the most cursory allusion to this objection in his letter to Prof. Simpson in 1848, and the "feeling of astonishment" does not appear to have seized upon him till 1852, or subsequently to Prof. Ramsbotham's preferment thereof. Dr. Murphy, in his "Chloroform in Childbirth," says: "The Anæsthesia of Chloroform has not the least resemblance to drunkenness; they have not a symptom in common." Setting this authority aside for the time, however, and admitting for the sake of argument, that the charge is true, how much more applicable is it to results produced by chloroform, than to the same produced by opium, camphor, (which Prof. M., with Dr. Physick, agrees "to have been made for women") cannabis indica, hyoseyamus, or any other of the large and very useful classes of inebriants, soporifics and delirians; and yet Prof. Meigs would be very careful how he placed any one of these articles in his *Index Expurgatorius*. Nay, with what a lavish disregard of Mr. Gough and individual consistency, does he prescribe "good Bordeaux wine" and a "small glass of sherry or port, at dinner," without a thought of the results inevitably accruing?

I do not know that I am able to point out the difference between the insensibility from whisky, gin, brandy, wine and beer, and that from ether and chloroform. Prof. Meigs says "no reasoning—no argumentation is strong enough to point out the ninth part of a hair's discrimination between them—*except* that the volatility of one of the agents, or its diffusibility as a stimulant narcotic, enables it sooner to produce its intoxicating effect, which is sooner recovered from in one case, than in any other of the use of an intoxicating drug." Add to this, that chloroform begets a positive disgust to its vapor, by use, and with this exception, I profess to be abundantly satisfied. For I claim that the insensibility of alcoholic intoxication is its least exceptionable feature; and if this be the sole point of resemblance between chloroformal and alcoholic intoxication,—if the use of the former agent, shall produce no appetite to be gratified at the expense of health, honor, happiness, friends, reason,

even life itself, as does the use of the latter, and which is the true objection to the use of all alcoholic fluids—"good Bordeaux wine," "sherry and port" included,—if this be the only point of resemblance, then the argument is equally valid against all the agents of the *Materia Medica*, whose province it is to annul pain, obtund consciousness, and produce sleep. Dr. Murphy, quoted above, contends that the argument is as valid against Nature herself—since she deprives us of consciousness each night, and "when the agonies of childbirth become so intense as to be no longer tolerable, sometimes induces that complete state of both unconsciousness and anæsthesia, called puerperal convulsions."

Under the head of Impropriety, comes also, the religious objections, presented by Prof. Meigs in the following language: "I have by no means said what I am inclined to say, as to the doubtful nature of any processes that the physician sets up, to contravene the operation of those natural and physiological forces, that the Divinity has ordained us to enjoy or to suffer."

Without endorsing Prof. Simpson's elaborate and scholarly argument in answer, based, as it is, on philological erudition which I do not possess, and which is, to say the least, made questionable, by the translation and commentary on the passages of Scripture discussed by Prof. Simpson, in the recent works of the eminent Dr. Kalisch, and by Prof. Noyes, of Cambridge, both high authorities in Hebrew, I do not hesitate to avail myself of reasonings and facts cited in support of other views.

Most prominently in this connection, arises the question, what is a truly Natural Labor; and if we accept the definition of Prof. Miller, "one, in a good degree, free from such pain as we are accustomed to witness," I am unable to see the contravention of any Divine ordinance in the induction of any process which shall annul that extra degree of pain which makes labor unnatural; and which is the joint result of the unnatural condition of the woman of to-day, produced by "the hot-beds of civilization," and the increased development of the skulls of civilized races; a development, not participated

in by the pelves of the women, if indeed, they be not positively contracted by modes of dress, habits of life, etc. How else can we account for the immunity of the female barbarian from such pain as her civilized sister is bade to endure as a Divine decree?

To sum up the counts of the first head, and our answers, we have first: Labor-Pains alleged to be conservative, salutary and desirable; and an essential element of the function of parturition. Disproved by the brief analysis of the office of Pain, and by extracts from Prof. Meigs' own writings. *Per contra*, I have shown these pains to be useless, objectionable, and, in some cases, positively pernicious; and the distinction between Pains created by Prof. Meigs to meet the emergency, as fanciful and unphilosophical—doing more credit to his ingenuity, than to his scientific reputation.

II. The inability of the anæsthetized patient to counsel the operator in the use of the forceps. Very fully overbalanced by her restlessness, unanæsthetized, causing accidents painful and tedious of recovery—to say nothing of the ignorance and untrustworthiness, implied in the operator who should rely on such a guide, or of its unreliability, owing to the mental condition of the patient at such times, and the variety of degrees of endurance in various women.

III. Moral objections to Anæsthesia, on the ground of its similarity to alcoholic drunkenness. Similarity shown to be only in a minor physical point, and in nowise bearing a resemblance to the immoral sequelæ of alcoholic intoxication.

IV. Religious objections to the process, as contravening the primal curse. Shown to arise from a narrow, unphilosophical view of the subject—which ignores the facts that civilization has thus far, increased the size of the fœtal head, and reduced the bony system of the mother in a varying ratio; that barbarous and semi-civilized tribes, and now and then, individual cases in the most highly-civilized races, are exempt from that degree of suffering in labor, which makes the process, according to Prof. Miller, unnatural. Much is omitted in this, as in other sections, from want of time, and fear of prolixity, but I cannot refrain from alluding to the fact mentioned

in Exodus I, 19, as pertinent here: "And the midwives said unto Pharaoh, Because the Hebrew women are not as the Egyptian women; for they are lively, and are delivered ere the midwives come in unto them." A Scriptural proof of much more weight than that cited by Prof. Simpson of Adam's sleep while his rib was removed—and which latter, by the way, had occurred to me before seeing Prof. S.'s allusion to it; but was set aside, notwithstanding the subsequently met testimony of Luther,—that the sleep was induced to prevent Adam feeling any pain—on the ground that the incident occurred before the fall, and before Sin, Pain and Death had entered the world—a fact, which all commentators, so far as I know, overlook.

But to return from this digression. I take up the counts of the second head, viz: *The danger and evil results of Anæsthesia.*

It would be too tedious to enumerate all the evil results that have been attributed to this practice:—flooding, convulsions, tardy recoveries, effusions, poisoning of the child, even puerperal mania, and idiocy, with many other equally monstrous and absurd charges—the simple and conclusive refutation of which is to be found in the entire absence of any kindred charge in Surgical Anæsthesia, and a detailed disproof of which is here unnecessary, if not impracticable.

The final and gravest objection to Anæsthesia in Midwifery is, that of Danger of Fatal Results, one indeed, not strongly pressed at the present day, but still embodied in Prof. Meigs' latest editions; and to give a show of reason for which, the learned writer makes use of a piece of special pleading, which would not discredit the reputation of the far-famed Philadelphia bar, to-wit: "I readily hear, before your voice can reach me across the Atlantic, the triumphant reply that an hundred thousand have taken it without accident. I am a witness that it is attended with alarming accidents, however rarely. But should I exhibit the remedy for pain to a thousand patients in labor, merely to prevent the physiological pain, and for no other motive—and should I in consequence destroy only one of them, I should feel disposed to clothe me in sack-

cloth and cast ashes on my head for the remainder of my days. What sufficient motive have I to risk the life or death of one in a thousand, in a questionable attempt to abrogate one of the general health conditions of man?" This is copied from his letter to Prof. Simpson, before referred to. It will be observed that Prof. Meigs starts out with the assumption that it had been used in an hundred thousand cases without accident; Prof. S. in his letter, to which this is a reply, distinctly states that "no accidents have as yet happened under its use, though *several* hundred thousand must have already been under the influence of chloroform." Prof. Meigs then goes on to reduce the number of cases to one thousand, and finally winds up with the assumption that one death occurs in a thousand, and queries what right he has to risk that—a mode of argument befitting a jury lawyer more than a grave professor discussing a medical question. The objection and the argument, however, is best met with the stubborn fact that despite the jealous watchfulness of Meigs, Ramsbotham, Arnott, Lee, and the numerous lesser lights of its opponents, but two deaths from chloroform, not one from ether, and not one from either chloroform or ether, administered by a medical man, in midwifery, are yet recorded. And the use of these agents may be stated in round numbers at 20,000,000 cases in the United States, Great Britain, France and Germany, in the last twelve years!

Can any more convincing proof of the groundlessness of the charge of Danger, be produced or demanded?

Prof. Ramsbotham has, indeed, claimed to have discovered one fatal case by the use of chloroform in the hands of a physician; but the proof is so decidedly against this, as the cause of death, that no one else has been found willing to cite it; and I doubt much if Prof. R. himself, would now urge it. Dr. Snow, to whom I refer for a report of the case, arrives at the conclusion that chloroform had nothing, whatever, to do with the death; inasmuch as the patient had been successfully anæsthetized in two previous labors, had fully recovered from the chloroform, in the one before her death, and was comfortable, conversed with friends, etc., for an hour and a

half before feeling any distressing symptoms, and finally that these (symptoms) "did not coincide at all with the known effects of chloroform."

Of the two other cases, the exceptions I have mentioned above to the innocuousness of Anæsthesia in Midwifery, both occurred in the hands of non-professional persons. The first, in 1855, in England, was the result of its induction by the patient herself, against the advice of her attendant; five drachms were used and the inhaler (a handkerchief), remained in close contact with the patient's face until death ensued. The other case occurred in Scotland, in 1858; the chloroform was administered by her husband; "on giving it probably for the fourth time, she threw herself violently back, gave a gasp or two, a slight gurgle was heard in her throat and respiration and the pulse instantly ceased."

I have quoted details in these cases (the former from Dr. Snow's report, the latter from Dr. Campbell's statement to Dr. Lee), for the purpose of future reference; meanwhile in view of the fact that not a single death can be traced to the use of chloroform or ether administered by medical men in (estimated) 20,000,000 obstetrical cases I assert that this last, most serious charge is utterly devoid of foundation; and defy a similarly favorable record to be produced for any other equally powerful agent of the *Materia Medica*.

To resume then; if anything, I have proved,

1st. That the hostility to Anæsthesia in midwifery is due, mainly, to the efforts of a learned, eloquent and influential opponent, early committed to his antagonistic position, and too fixed in opinion to even re-examine the subject.

2d. That the objections are alike unsound in theory, and unfounded in fact; in proving which latter I have also shown incidentally that

3d. Anæsthesia in midwifery is desirable, useful and proper; for that it annuls pain, which, being an evil, abnormal, in this instance useless, and productive, in itself, of mischievous consequences, even to death itself, is the legitimate object of the physician's hostility. And,

4th. That it is perfectly safe, and free from annoying or dangerous sequelæ.

In the foregoing pages I fear I may have, now and then, appeared to overstep the bounds of that deference and respect, which none more readily than myself would observe, as the just meed of the tutor from his pupil, of Learning and Wisdom from Ignorance and Inexperience. And yet no writer whom it has been my good fortune to peruse, more uniformly or more strenuously insists on the right and duty of the student to criticize and dissect the precepts of his author, than Prof. Meigs; and in no other section, than in this upon *Etherization*, does he speak more directly to the student, or leave more questions for the student to examine and settle for himself. In availing myself of this right and duty, I have been actuated solely, I trust, by a desire for the truth, influenced only by a wish to render some service, however slight, to the cause of humanity, in the abolition of human suffering; and I desire, before closing, to place in the same record, an expression of my deep sense of respect and admiration of Prof. Meigs, as a devoted, enthusiastic lover of his profession, a sedulous, untiring student, and a writer, the most fascinating and instructive.

In closing this effort, I cannot overcome a feeling of disappointment and regret at the crude, disjointed character of an appeal in behalf of a practice, which, though its array of facts is overwhelming and indisputable, still needs all the eloquence and genius which its opponents have lavished in its assault, to resist their attacks, and counterbalance the sentiment they have created against it.

The history of Anæsthesia presents an anomaly, most singular and deplorable, in its comparative exclusion from midwifery, while so universally resorted to in surgery. And the fact that, of all the physicians whom I have questioned upon the subject, I have not met one who refuses to employ these agents when insisted upon by patients in labor, is *prima facie* evidence, to me, that the mind of the medical profession is not clear and decided upon the subject. And yet see the dilemma this places them in!

If Prof. Meigs and his followers be right in their views, the exhibition of chloroform and ether is pernicious and improper to a degree which warrants its positive denial; and

the physician who, holding such views, yields to the solicitation of his patient, is as morally guilty of compounding a felony, even though no bad results ensue, as is the professional outcast, who consents to produce an abortion, under the same influence.

If he withholds it generally, from a confused, uncertain idea that it is dangerous, and yet yields to the pleadings of his patient, upon whom he fancies he thus throws the responsibility, then I claim that he is derelict in his duty, and in the fullest, truest sense, is not a Physician, but a tamperer with the holy science. And I envy not that man, be his professional position what it may, who through indecision or lack of investigation, is content to stand idly by the bedside, a dispassionate witness of pangs indescribable, agony incomparable, at a time when the highest, holiest, most mysterious sympathies of our nature should be evoked—the advent of an immortal soul into the world.

If the miraculous vapor be Divine in its mission at any one time more than another, it is not when the crushed and mangled victim lies helpless upon the operating table, when the cruel steel is poised in hand, previous to its terrible passage through the fair, white skin, the shrinking muscle and the quivering nerve. But when, with sorrow greatly multiplied, they that travail in child-birth, through this, the triumph of man's skill and study, are relieved of the curse, then, indeed, is man more godlike, and Anæsthesia a true *Donum Dei!*

NOTE.

I deem it proper, in submitting the above, to state that I had contemplated, originally, a very different treatment of the subject, viz: An examination of the Physiology of Anæsthesia, with a view of elucidating the phenomena of its occasional fatal results. And to this end I had devoted considerable time and research to the Necrology of Anæsthesia; when, finding the subject beyond my depth, and demanding an amount of labor in study and experimentation, which the duties of the lecture term forbade, I determined upon the course, the results of which are herewith given, with no little diffidence and misgiving.

My first plan involved the collection and analysis of all the fatal cases on record—something under one hundred—but scattered *passim*, as they are over the current literature of twelve years, the undertaking was greater than it at first seemed; and was rendered doubly difficult by the very incomplete condition of the Medical Libraries of this city. Another source of information—that by correspondence—was only partially availed of, when I saw the reasons for changing my design.

I cannot, however, forego this opportunity (limited, though its publicity may be, by the dusty obscurity of the shelves of the College Library,) of acknowledging the kindness of those gentlemen who have favored me with the results of their own experience; chief among whom, allow me to gratefully mention the worthy colleague of Prof. MEIGS,—SAMUEL D. GROSS—two names which have received the highest eulogiums of the profession, as first among the foremost in Obstetrics and Surgery.

I take the liberty of appending a copy of Prof. Gross' letter:

PHILADELPHIA, Dec. 15th, 1860.

DEAR SIR:—

I answer your letter of the 10th instant, with much pleasure.

You ask me, in the first place, why I “do not inhibit the exhibition of Chloroform in cases of organic lesions of the heart and lungs, more especially, the former.” To this I reply: first, because I have never witnessed any bad effects from the use of it under such circumstances; and secondly, because there can be no impropriety in giving such a remedy when the malady is not so great as, in itself, to forbid operative interference. Chloroform, if of good quality, and judiciously administered, never produces any serious influence upon the action of the heart and lungs. The rule is, always to promote the free introduction of air into the respiratory passages.

I answer, in the second place, that no fatal case from the effects of chloroform has ever come under my observation. In one instance—that of a lad mentioned in my *Surgery*—the patient was nearly asphyxiated from an over dose of chloroform from inhalation while in the recumbent posture; and in another, he was nearly an hour in recovering from the effects of the remedy, although he was kept constantly on his back,

both during and after the operation. Doubtless, the patient should never be permitted to sit up during an operation when he takes chloroform; at all events, my invariable practice is to make him lie down until the effects of the anæsthesia have, in great degree, if not wholly, disappeared.

There are, according to my experience, five cardinal rules for the administration of chloroform; and when they are properly observed, there is, I presume, little, if any, danger to be apprehended from the use of the remedy. These rules are as follows:

1. The selection of an unexceptionable article, such, for example, as that manufactured by Dr. Squibb. Formerly I used nearly altogether the Edinburgh chloroform, but I believe that the American is quite as pure, and consequently, as safe.

2. The free admission of atmospheric air along with the anæsthetic; the administrator giving the subject his undivided attention while the inhalation is in progress.

3. An empty state of the stomach, and a moderately empty state of the bowels. For this purpose, the patient should not take any food for six or eight hours, prior to the operation. If the bowels are loaded, a purgative should be administered the previous evening.

4. An absence of all constriction of the chest and abdomen, so as to admit of the free play of the diaphragm and intercostal muscles.

5. Complete recumbency during the administration, not allowing the patient to rise, on any account, whatever.

If these rules be carefully observed, my conviction is, that it would be extremely difficult to kill a person with chloroform, even when there is considerable organic lesion of the heart and lungs.

With kindest regard,

I am, dear sir,

Very truly, your friend,

Dr. F. W. REILLY, *Chicago.*

S. D. GROSS.

To the above rules nothing can be added, it seems to me, save a more emphatic repetition of No. 2. I feel quite convinced, in my own mind, and design, at some future time, to attempt the proof, by data already partially collected, that deaths by the inhalation of chloroform, may be divided into two, or at most, three classes; the first of which, and the most important, includes those resulting from a spasmodic closure of the glottis, produced by the action of the undilute

vapor—a condition not difficult to realize in the recumbent position, with the pure vapor falling in a heavy volume through the half-inch or so of space most administrators seem to think sufficient; and I am led to suggest, after repeated experiment, the doubt whether, after all, the position on the back is the safest under all circumstances; and to query if it will not, eventually, be found advisable to place the patient upon his *side*, in the first steps of the process. Chloroform vapor is very much heavier than atmospheric air; and though diffusible, is not permeable—by which, I mean, that though it will mix with atmospheric air, in all proportions, yet this latter will not penetrate a stratum of the vapor, without mechanical disturbance. Any one may test for himself, without trouble, the effect of the first inhalation, and the marked comparative ease with which it subsequently proceeds, until it becomes necessary to renew the supply. The irritation subsides with each succeeding inspiration, partially owing to the force of habit, but mainly because the vapor is more and more dilute with every additional breath, until entirely exhausted. While the supply is being renewed, a few seconds intervene, during which no vapor is inhaled at all,—the glottis returns to its normal sensitive condition, and is as liable to spasmodic closure against the offending agent as at first. And, now it seems to me, is the true moment of danger: The administrator, emboldened by this first experience, stimulated, too frequently, by his own desire to cut short the noisy, intoxicated stage, and by the impatience, often, of the Surgeon to proceed with the operation, applies the freshly saturated cloth, sponge, or what not, still more closely to the patient's nostrils. Regarding the struggles of the latter, should he be able to make any, as merely the manifestation of his intoxication or perverseness, he follows every motion of the head closely, or holds it fixed with his hand; the heavy column of chloroform falls pure and unmixed into the nostrils; respiration ceases for a few fatal moments, and when the spasm relaxes, the nerve centres are overwhelmed, the circulation, already languid and charged with carbonic acid, bereft of its stimulus, flags—and the patient is dead! These, I have no doubt, were the phenomena in the case related by Dr. Campbell, referred

to in the *Thesis*; also in the first Bartholomew Hospital case, and in many others whose details I have carefully studied. I am further convinced of the soundness of this view from personal experiment,—of which more, possibly, anon.

The practical deductions from this are, that “*free admission of atmospheric air along with the Anæsthetic*,” is of the FIRST AND UTMOST IMPORTANCE. That the undivided attention and intelligence of the administrator is necessary; no consideration of expense either of time or for chloroform should be allowed to enter into the calculation; better far, spend fifteen minutes more with each of a thousand patients, if you thereby insure their individual safety, than save that time to nine hundred and ninety-nine, at the expense of the life of the thousandth.

To insure this *gradual induction*, I believe the position on the side, most favorable; the nose being, say, two to two and a half inches from the pillow, the inhaler held above the line of the nostrils, at a distance, never less than an inch and a half, and better two inches above. The vapor is thus not alone mixed with the atmosphere by the mechanical disturbance of the breath, driven through it, but only that vapor obtains access which is *drawn in*, none being allowed to *fall* into the mouth and nostrils of its own specific gravity, as is the case when the position on the back is assumed. With these precautions, the induction of Anæsthesia may require double the present ordinary time; but its safety must be materially increased.

ACCORDING TO DR. FISCHER, a glass of wine taken 15–30 minutes before chloroform, will entirely prevent the vomiting so often troublesome after inhalation. Perhaps, he adds, the dangers may also be lessened by this simple means. [We feel bound to confirm Dr. F.’s positive statement to some extent, having frequently with great benefit administered wine before producing anæsthesia. The desired effect seemed in all cases to be produced more quickly and safely, (*i. e.*, with a smaller quantity of the anæsthetic,) and though we had not directed special attention to the vomiting afterwards, we do not remember that it ensued in a single one of these cases. Our experience in this respect is further borne out by that of a friend, a dentist, of this city.]—*Dr. L. Elsberg, Foreign News Compiler, American Medical Monthly.*

The Clinique.

NOTES OF SURGICAL CASES.

By E. ANDREWS, M. D.,

PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF LIND UNIVERSITY, ETC.

SURGICAL WARDS, MERCY HOSPITAL.

CASE 1st.—*Excision of the Head of the Femur.*

M. M., aged ten years, was attacked a year ago by an inflammation of the left hip joint, which seemed to be rheumatic in its character. Being skilfully treated by her attendant—Dr. Fox, of Lyons, Ill., she apparently made a perfect recovery. About six months afterwards, she was attacked with a malignant diphtheria, through which she was carried also by the skill of Dr. Fox. The diphtheria, however, left her in a very enfeebled and cachectic condition. The hip joint took on a new inflammation, and one of different character from the previous attack. The case soon assumed all the appearances of hip disease, and progressed with great rapidity. In a short time pus was effused, and a discharge of half a pint every day, soon reduced the patient to the verge of fatal exhaustion.

Under these circumstances, the immediate removal of the carious bone was decided to afford the only chance of life. For this purpose a mixture of chloroform and ether was given, to anæsthesia, and the diseased part laid open by a single incision of four inches parallel to the shaft of the femur. On introducing the finger, the acetabulum was found to have entirely lost all definite boundaries by absorption of its rim. It was converted into a broad shallow fossa, and was half filled with granulations. I find this state of the cavity in a large portion of all the cases of hip disease which come under my care for operation. The head of the femur was carious, denuded of cartilage, and lay with its rough burr-like surface in contact with the flesh on all sides. With the chain saw I removed the head and neck of the bone, and closed the wound with a

single adhesive strap. There was no material hæmorrhage, and the patient awoke from sleep without manifesting a particle of shock from the operation.

One beneficial result of the removal of the diseased bone was an immediate diminution of the suppuration, and of the pain upon moving the limb. The next day the patient was put upon the free use of the mur. tinct. of iron as a tonic, and as a prophylactic against traumatic erysipelas, and now—ten days after the operation, is doing remarkably well.

CASE 2d.—*Fistula from the Hip Joint into the Rectum.*

A. A., a little girl of twelve years, appeared in the third stage of hip disease. The limb was shortened, and a free discharge of pus was exhausting the patient. I excised the superior extremity of the femur in the usual manner, and removed with the gouge, some suspicious portions of the ilium. This afforded great relief from pain, and diminished very much, the suppuration; but still, for eight months the wound refused to heal. At length I ascertained that the patient was daily passing flatus from the external wound. This strange occurrence prompted an effort to trace out the passage with a probe, but the tortuous direction which it pursued, rendered it impossible to follow it into the rectum. Soon afterwards, the patient had an abscess on the inner side of the thigh. This being lanced, gave exit to pus and wind, and the flatus was henceforth discharged from that orifice. I ascertained that water injected into the rectum ran out in this route, and that the fistulous track crossed the posterior part of the tuber ischii. Administering chloroform and ether to insensibility, I passed a probe up the fistula as far as the ischium, and feeling for it through the skin, cut down upon it. Withdrawing the probe, I inserted at the wound, a blunt pointed bistoury, carrying it along the fistula until I received the end of it on my finger in the rectum. I then divided the sphincter in the usual method.

The result of this operation was that the opening on the outer side of the thigh immediately began to heal. This is the only instance which I ever heard of, where a *fistula in ano* opened upon the outer side of the thigh.

The operation of excision of the hip joint, which has of late, risen so rapidly into favor, is certainly less dangerous in this locality, than it would seem to be at the East. The report to the American Medical Association, shows a mortality of about thirty per cent., a large proportion of which was from erysipelas in its various forms.

In this city the results are certainly better, for I have within twelve months operated upon seven cases, and all the patients are now living. Only one is in any danger, and that is in consequence of a pre-existing chronic diarrhoea. Not a single instance of traumatic erysipelas has occurred. My escape from this horrible complication, I attribute to the fact that I have in every instance, administered freely, the muriated tincture of iron as a prophylactic. I do not wait to see evidences of the disease, but commence giving the remedy on the second day after the operation.

Splints for Hip Disease.—Very excellent splints to keep up extension in hip disease have been devised by Drs. Davis and Sayre, of New York. These are used in all stages of the disease. In the early months of the attack, the extension takes away the pressure of the inflamed head of the femur in the joint, and allows it to recover. After an operation, it is used to prevent too great shortening while the end of the femur is contracting a ligamentous adhesion to the side of the pelvis.

Sayre's splint is applied to the outer side of the limb, and supports the body by a perineal band, and is attached to the side of the leg, just above the ankle, by spiral adhesive straps.

There are, however, some imperfections about this excellent instrument.

The principal of these is the fact, that it is applied to the outer side of the limb, and hence, comes directly over the ulcer, which remains for a time after the operation. The ulcer is apt to be injuriously pressed upon, and the padding of the splint becomes fouled with the discharges.

Before Sayre's splint came to my notice, I had already devised one, which, after considerable experience, I am disposed, decidedly, to prefer: It is applied to the inner, instead of

the outer side of the limb, and is therefore, quite out of the way of the wound of the operation. The top supports the perineum by a crutch piece, padded and covered with patent leather, and the bottom is attached firmly to the sole of the shoe, and at each step transmits the weight of the body directly to the ground. The extension is made by a screw working in a tube. If the limb requires to be kept well down, it is done with the utmost comfort by means of broad adhesive straps applied to each side of the leg, as in cases of strap extension in fracture, and tied under the shoe, or buckled to its side.

The price of the whole is five dollars; (that of the Sayre's splint, fifteen dollars.) They can be made in this city to order, by simply sending a measure of the length of the patient's foot, of the distance from the perineum to the sole of the sound foot, and a statement of whether the disease is on the right or left side.

MARINE HOSPITAL.

DR. ISHAM'S CLINIQUE.

Reported by STACY HEMENWAY, Student of Medicine.

B. C., aged 40, admitted April 9th; seven days previous to commencement of Prof. Isham's service.

The disease with which this patient was afflicted for more than a year, consisted of an eruption of small patches of minute vesicles about the size of a pin's head, each surrounded by a shining red areola, and in places, assuming the character of a papular eruption caused by the scratching of the patient, to allay the intolerable itching at night, when warm in bed. This eruption covered the extremities and was chiefly confined to them. In places, a laminated crust was formed over the vesicles from the exuded matter; in others it was excoriated, and successive crops seemed to appear.

His treatment had been the internal use of Fowler's Solution, and the local application of equal parts of Citrine

Ointment, and Simple Cerate. This was changed on the 17th, to the following :

R

Zinci Oxidi,	ʒiss
Amyli,	ʒij
Glycerin,	f ʒj
Chloroform,	f ʒss

M. S. To be applied to the affected parts at night; also the skin to be kept saturated during the day time with a solution of Bicarbonate of Soda (ʒss to Oj of water) through the medium of cloths applied to the parts and covered with oil silk so as to prevent evaporation. The internal use of the following was also prescribed :

R

Magnes. Sulph.	
Pot. Bitart.,	āā ʒj
Aquæ,	Oj

M. S. A wine glass full every hour.

April 19th, condition of patient much improved. The indurated parts have begun to soften, and the skin begins to present a healthy appearance; the itching is entirely controlled by the treatment.

He was directed to take internally a solution of Pot. Iodidi ʒj to f ʒiv of water in tablespoonful doses, every three hours, and to continue the external treatment.

Monday, April 29th.—Discharged completely cured.

It was remarked that in hospitals when the treatment can be enforced and strictly followed, the results of such cases were very satisfactory, but that in private practice it was a matter of the greatest difficulty, to persuade a patient to keep sufficiently quiet to secure a proper application of the lotion, and still more difficult to impress upon him the idea that constant moisture is necessary; hence the cure is frequently begun but never completed.

To avoid the irritating effects of "greasy" applications, Prof. Isham is accustomed to prescribe the use of sulphate of zinc, combined as directed in the formula above, in which the starch with the Glycerine makes an emulsion which is not "heating" as the usual ointments are, and of which patients complain, whilst the chloroform allays the hyperæsthesia of the

skin. This is applied with friction by the hand; but any treatment is useless unless the patient avoids excitement of the circulation, and wears next to the skin some non-irritating and loose fitting garments.

He also stated that in his experience, the use of Citrine Ointment in such cases seemed to aggravate the disorder.

II. There was presented a case, Pityriasis versicolor, of which the patient had been complaining for three weeks, covering the chest, upper extremities, armpits, and nearly the whole abdomen. It was characterized by the usual yellow color, excessive itching, furfuraceous desquamation, and in the groins by an altered and inflamed condition of the skin.

A lotion of Sulphurate of Potash, and the internal use of powders of Rhubarb, Ipecac and Soda, were prescribed.

III. P. G., aged 33; Scotland; married; of temperate habits; applied at the Hospital for relief, May 18th.

No hereditary tendency to tubercular disease could be traced in his history. *He describes three attacks of rheumatism he has had in the last four years.*

The first commencement of his present difficulty he attributes to a "sprain in the chest" he experienced on board a vessel whilst reaching to grasp a rope, three years ago. Shortly afterwards he began to experience severe pain in the right infraclavicular region, which continued steadily for eighteen months, when, in addition to this, he began to suffer from pain in the same region of the left side,—about this time, he became troubled with shortness of breath, whenever he made any unusual exertions, but had no cough. These symptoms continued without much change until twelve months ago, when they were aggravated by a cough, most severe when lying down, and occasionally accompanied with a frothy white expectoration. Last September, the cough became much worse, accompanied with expectoration of blood, at first in clots mixed with a little mucus, and afterwards pure *florid* blood; and this hæmoptysis lasted for eight days. About the 1st of November, the cough began to gradually cease, and again, about the 1st of January, his symptoms became so se-

vere as to confine him to his bed for eight weeks afterwards; the pain being very great across the upper portion of the chest and in the arms, accompanied with fever, dry cough, loss of appetite, and emaciation.

He subsequently improved a little, gained some strength, but the pain and cough, with difficulty of breathing, became much exaggerated in March, and still continues.

He says he is unable to lie on the left side, but does not cough so much at night as he did previously, and the expectoration is mostly white and opaque. He complains of palpitation of the heart, and says he has been subject to it for four or five years, but it has become more constant and troublesome of late; countenance anxious, as one suffering pain; lips bluish; respiration labored and difficult; pulse 130, feeble; appetite poor.

Physical Examination, First—Inspection.—The chest is not symmetrical in its proportions, but presenting from the summit of the sternum nearly to the ensiform cartilage, and most markedly on the left, a preternatural fullness, which is seen to pulsate. The apex of the heart beats immediately below the left nipple in the sixth intercostal space. The chest readily expands upon forcible inspiration in a normal manner.

The right infraclavicular region is somewhat more sunken than the left.

Second—Palpation.—Upon placing the hand over the prominence before mentioned, a decided hammer-like impulse is imparted to it synchronous with the beating of the heart, and accompanied with a rasping sensation, (*fremissement*.) This can be partially felt just over the sternum, by flexing the head of the patient and forcing the fingers behind it. Vocal vibrations are felt throughout the chest.

Third—Percussion.—In the sternal region throughout its entire length, and laterally, an inch from either border, comprising the prominence of the tumor, is dullness amounting to flatness. There is also dullness on percussion under the right clavicle.

The dullness of the left chest anteriorly, commences at the third rib and extends downwards two inches below the left

nipple and outwards to a line two inches beyond it. Posteriorly: The right chest is normal on percussion, but the left is dull in the supra and infra-scapular regions—otherwise percussion is normal.

Fourth—Auscultation.—The respiration anteriorly, throughout the right chest is puerile, and at its summit approaches in character to that of bronchial, but no moist sounds, bronchophony or pectoriloquy, but the attention is attracted by a peculiar churning noise, (*bruit de soufflet*.)

Left chest, anteriorly, respiration weak, (distant); and occasionally accompanied with subcrepitant rales. Under the upper third of the sternum, in addition to the impulse, is heard a double-bellows sound, not unlike an aneurismal bruit.

The apex of the heart gives to the ear the hammer-like impulse before mentioned, and also the two sounds of the heart in such rapid succession that no appreciable interval can be detected, with a slight bellows murmur, commencing with the first sound, but *most distinct* over the *base*. The respiration of the right side, posteriorly, presents no marked peculiarities except being puerile; upon inspiration, the left chest gives some moist sounds.

This double-blowing sound before noticed, is not to be confounded with the sounds of the respiration through the trachea, modified by the impulses of the tumor against it.

Diagnosis.—Hypertrophy of Heart; insufficiency of the Aortic valves; and aneurismal dilatation of the arch of the Aorta.

In commenting upon this case, the Professor dwelt upon the affections of the heart and their frequency, as the sequelæ of rheumatism, and especially the insidiousness with which they sometimes approach, as illustrated by the history of this patient—especially when the affection begins in a valvular disease as was probably the fact in this case, though the physical signs are always present to the practiced ear. The patient apparently recovered from his rheumatic attack, suffered no disturbance from his cardiac disease, except palpitation upon unusual exertion, until finally the whole train of cardiac disease, dyspnœa, pain, and constant palpitation were developed

from an hypertrophy of the organ, leading rapidly to a fatal result. He insisted, from these facts, that the physician should never rest satisfied that the heart is uncomplicated in cases of inflammatory rheumatism *because* the patient makes no complaint of *pain in the præcordial region*: the heart should be examined daily. He dwelt upon the pain in this case, (angina pectoris,) as a continued symptom, and accounted for it upon the hypothesis that the inferior cardiac branch of the right pneumogastric had become entangled in the tumor at an early period, subsequently the same thing upon the left side, and reminded the class that the pain from irritation of a nerve is referred to its periphery, and oftentimes to distant parts through its communicating branches.

In describing the value of the physical signs of this case, the differential diagnosis between obstruction of the aortic orifice and imperfect closure of it, was explained as in the one accompanying or masking the *first* sound of the heart heard over its base, and transmitted upwards along the aorta, and in the other heard in the same place, but masking the *second* sound of the heart; is a sound of regurgitation; is softer and shorter, and seldom, as in this case, heard as far as the apex.

In reference to the hæmoptysis, he called attention to the length of time which had elapsed since its occurrence, and to the case of the celebrated surgeon, Mr. Liston, who died of aneurism five months after the first gush of blood from the trachea, and to another case reported by Dr. Gardner, of Edinburgh, in which hæmoptysis occurred four years and eight months before death; concluding by saying that in this case, it giving no positive evidence of phthisis upon a critical examination, and presenting no proof of disease of the larynx or laryngeal phthisis, and with the positive signs here presented, even in the absence of a tumor, aneurism could be diagnosed with certainty.

IV. C. C. O., aged 25; applied for relief May 8th. The evening previous, he received an injury from the fall of a tackle block, thirty feet, striking him upon the left shoulder. He suffered considerable pain, and the parts presented upon examination, a good deal of swelling and ecchymosis, and a

noticeable flattening of the deltoid. After a complete examination, fracture of the acromion process was diagnosticated.

It often happens, said the Professor, that the surgeon may hesitate respecting the existence of fracture of this character, and a dislocation into the axilla—the physical signs apparent to the eye, in both cases are identical, so that when the shoulder is contused and swollen by the injury, as at present, the diagnosis is difficult and delicate. This may be simplified by the following points:

1st, In *dislocation* the deltoid can be crowded under the acromion.

2d, All normal conditions are impeded or abolished.

3d, The limb is longer than natural, and we feel for the head of the bone, in the axilla.

In *fracture* we may detect crepitation with care, and the movements of the arm are not restricted. A simple and easily discovered symptom, will always enable you to recognize this fracture with certainty, whether swelling exists or not:—*by raising the arm* with the forearm flexed, we *correct* the flattening and depressibility of the shoulder, restore its contour, determine crepitus, whilst the *deformity is re-produced* at once, when the limb is left unsupported.

TANNIN AN ANTIDOTE OF STRYCHNIA.—Dr. Kursak concludes, from numerous experiments on dogs and rabbits, that the prompt exhibition of tannin is the safest and most efficient remedy for poisoning by strychnia. The quantity of the antidote should be proportionate to the amount of the poison which has been taken, and even somewhat exceed the latter, inasmuch as the contents of the stomach are liable to absorb a portion of the neutralizing agent. For every grain of strychnia, about two drachms of gall-nuts, or more in case of vomiting, should be prescribed. Green tea also appears to possess a certain degree of efficacy, but only when the quantity of poison is very small. Oak-bark, acorns, etc., are convenient and active substitutes for pure tannin. But vegetable acids should be prohibited during the treatment, as they promote the dissolution of the precipitates thrown down under the influence of the tannic acid—the same exception applies equally to fermented liquids; and muscular efforts which induce convulsive action, in persons poisoned with strychnia, should likewise be carefully avoided.—*L'Union Médicale*.

Selections.

DIRECTIONS TO ARMY SURGEONS ON THE FIELD OF BATTLE.

BY G. J. GUTHRIE,

SURGEON-GENERAL TO THE BRITISH FORCES DURING THE CRIMEAN WAR.

(From The London Lancet.)

1. Water being of the utmost importance to wounded men, care should be taken when before the enemy, not only that the barrels attached to the conveyance-carts are properly filled with good water, but that skins for holding water, or such other means as are commonly used in the country for carrying it, should be procured and duly filled.

2. Bandages or rollers, applied on the field of battle are, in general, so many things wasted, as they become dirty and stiff, and are usually cut away and destroyed, without having been really useful; they are therefore not forthcoming when required, and would be of no use.

3. Simple gun-shot wounds require nothing more, for the first two or three days, than the application of a piece of wet or oiled linen, fastened on with a strip of sticking-plaster, or, if possible, kept constantly wet and cold with water. When cold disagrees, warm water should be substituted.

4. Wounds made by swords, sabres, or other sharp-cutting instruments are to be treated principally by position. Thus, a cut down to the bone, across the thick part of the arm, immediately below the shoulder, is to be treated by raising the arm to or above a right angle with the body, in which position it is to be retained, however inconvenient it may be. Ligatures may be inserted, but through the skin only. If the throat be cut across in front, any great vessels should be tied, and the oozing stopped by a sponge. After a few hours, when the oozing is arrested, the sponge should be removed, and the head brought down towards the chest, and retained in that position without ligatures; if this is done too soon, the sufferer may possibly be suffocated by the infiltration of blood into the areolar tissue of the parts adjacent.

5. If the cavity of the chest is opened into by a sword or lance, it is of the utmost importance that the wound in the skin should be effectively closed, and this can only be done by sewing it up as a tailor or a lady would sew up a seam,

skin only being included; a compress of lint should be applied over the stitches, fastened on by sticking plaster. The patient is then to be placed on the wounded side, that the lung may fall down, if it can, upon, or apply itself to the wounded part, and adhere to it, by which happy and hoped-for accident life will in all probability be preserved. If the lung should be seen protruding in the wound, it should not be returned beyond the level of the ribs, but be covered over by the external parts.

6. It is advisable to encourage previously the discharge of blood from the cavity of the chest, if any have fallen into it; but if the bleeding from within should continue, so as to place the life of the sufferer in danger, the external wound should be closed, and events awaited.

7. When it is doubtful whether the bleeding proceeds from the cavity of the chest, or from the intercostal artery (a surgical bugbear), an incision through the skin and the external intercostal muscle will expose the artery close to the edge of the rib having the internal intercostal muscle behind it. The vessel thus exposed may be tied, or the end pinched by the forceps, until it ceases to bleed. Tying a string round the ribs is a destructive piece of cruelty, and the plugs, etc., formerly recommended, may be considered as surgical incongruities.

8. A gun-shot wound in the chest cannot close by adhesion, and must remain open. The position of the sufferer should therefore be that which is most comfortable to him. A small hole penetrating the cavity is more dangerous than a large one, and the wound is less dangerous if the ball goes through the body. The wound should be examined, and enlarged if necessary, in order to remove all extraneous substances, even if they should be seen to stick on the surface of the lungs; the opening should be covered with soft oiled or wet lint—a bandage when agreeable. The ear of the surgeon and the stethoscope are invaluable aids, and ought always to be in use; indeed, no injury of the chest can be scientifically treated without them.

9. Incised and gun-shot wounds of the abdomen are to be treated in *nearly* a similar manner; the position in both being that which is most agreeable to the patient, the parts being relaxed.

10. In wounds of the bladder, an elastic catheter is generally necessary. If it cannot be passed an opening should be made in the perinæum for the evacuation of the urine, with as little delay as possible.

11. In gun-shot fractures of the skull, the loose broken

pieces of bone, and all extraneous substances, are to be removed as soon as possible; and depressed fractures of bone are to be raised. A deep cut made by a heavy sword through the bone into the brain, generally causes a considerable depression of the inner table of the bone, whilst the outer may appear to be merely divided.

12. An arm is rarely to be amputated, except from the effects of a cannon-shot. The head of the bone is to be sawn off, if necessary. The elbow joint is to be cut out, if destroyed, and the sufferer, in either case, may have a very useful arm.

13. In a case of gun-shot fracture of the upper arm, in which the bone is much splintered, incisions are to be made, for the removal of all the broken pieces which it is feasible to take away. The elbow is to be supported. The forearm is to be treated in a similar manner; the splints used should be solid.

14. The hand is never to be amputated, unless all, or nearly all its parts are destroyed. Different bones of it and of the wrist are to be removed when irrecoverably injured, with or without the metacarpal bones and fingers or the thumb; but a thumb and one finger should always be preserved when possible.

15. The head of the thigh bone should be sawn off when broken by a musket-ball. Amputation at the hip-joint should only be done when the fracture extends some distance into the shaft, or the limb is destroyed by cannon-shot.

16. The knee-joint should be cut out when irrecoverably injured; but the limb is not to be amputated until it cannot be avoided.

17. A gun-shot fracture of the middle of the thigh, attended by great splintering, is a case for amputation. In less difficult cases, the splinters should be removed by incisions, particularly when they can be made on the upper and outer side of the thigh. The limb should be placed on a straight, firm splint. A broken thigh does not admit of much, and sometimes of no extension, without an unadvisable increase of suffering. An inch or two of shortening in the thigh does not so materially interfere with progression, as to make the sufferer regret having escaped amputation.

18. A leg injured below the knee should rarely be amputated in the first instance, unless from the effects of a cannon-shot. The splinters of bone are all to be immediately removed, by saw or forceps, after due incisions. The limb should be placed in iron splints, and hung on a permanent frame, as affording the greatest comfort, and probable chance of ultimate success.

19. An ankle-joint is to be cut out, unless the tendons around are too much injured, and so are the tarsal and metatarsal bones and toes. Incisions have hitherto been too little employed in the early treatment of these injuries of the foot for the removal of extraneous substances.

20. A wound of the principal artery of the thigh, in addition to a gun-shot fracture, renders immediate amputation necessary. In *no other part* of the body is amputation to be done in the first instance for such injury. Ligatures are to be placed on the wounded artery, one above, the other below the wound, and events awaited.

21. The occurrence of mortification in any of these cases will be known by the change of color in the skin. It will rarely occur in the upper extremity, but will frequently do so in the lower. When about to take place, the color of the skin of the foot changes, from the natural flesh color to a tallowy or mottled white. Amputation should be performed immediately above the fractured part. The mortification is yet local.

22. When this discoloration has not been observed, and the part shrinks, or gangrene has set in with more marked appearances, but yet seems to have *stopped* at the ankle, delay is, perhaps, admissible, but if it should again spread, or its cessation be doubtful, amputation should take place forthwith, although under less favorable circumstances. The mortification is becoming, or has become constitutional.

23. Bleeding, to the loss of life, is not a common occurrence in gun-shot wounds, although many do bleed considerably, seldom, however, requiring the application of a tourniquet as a matter of necessity, although frequently as one of precaution.

24. When the great artery of the thigh is wounded (not torn across), the bone being *uninjured*, the sufferer will probably bleed to death, unless aid be afforded, by making compression above, and on the bleeding part. A long, but not broad stone, tied sharply on with a handkerchief, will often suffice until assistance can be obtained, when both ends of the divided or wounded artery are to be secured by ligatures.

25. The upper end of the great artery of the thigh bleeds scarlet blood, the lower end dark venous-colored blood; and this is not departed from in a case of accidental injury, unless there have been previous disease in the limb. A knowledge of this fact or circumstance, which continues for several days, will prevent a mistake at the moment of injury, and at a subsequent period, if secondary hæmorrhage should occur. In the *upper* extremity both ends of the principal artery bleed

scarlet blood, from the free collateral circulation, and from the anastomoses in the hand.

26. From this cause, mortification rarely takes place after a wound of the principal artery of the arm, or even of the arm-pit. It *frequently* follows a wound of the principal artery in the upper, middle or even lower parts of the thigh, rendering amputation necessary.

27. It is a great question, when the bone is *uninjured*, where, and at what part, the amputation should be performed. Mortification of the foot and leg, from such a wound, is disposed to stop a little below the knee, if it should not destroy the sufferer; and the operation, if done in the first instance, as soon as the tallowy or mottled appearance of the foot is observed, should be done at that part; the wound of the artery, and the operation for securing the vessel above and below the wound, being left unheeded. By this proceeding when successful, the knee-joint is saved, whilst an amputation above the middle of the thigh is always very doubtful in its result.

28. When mortification has taken place from any cause, and has been arrested below the knee, and the dead parts show some sign of separation, it is usual to amputate above the knee. By not doing it, but by gradually separating and removing the dead parts, under the use of disinfecting medicaments and fresh air, a good stump may be ultimately made, the knee-joint and life being preserved, which latter is frequently lost after amputation under such circumstances.

29. Hospital Gangrene, when it unfortunately occurs, should be considered to be contagious and infectious, and is to be treated locally by destructive remedies, such as nitric acid, and the bivouacking or encamping of the remainder of the wounded, if it can be effected, or their removal to the open air.

30. Poultices have been very often applied in gun-shot wounds, from laziness, or to cover neglect, and should be used as seldom as possible.

31. Chloroform may be administered in all cases of amputation of the upper extremity and below the knee, and in all minor operations: which cases may also be deferred, without disadvantage, until the most serious operations are performed.

32. Amputation of the upper and middle parts of the thigh are to be done as soon as possible after the receipt of the injury. The administration of chloroform in them, when there is much prostration, is doubtful, and must be attended to, and observed with great care. The question whether it should or should not be administered in such cases being undecided.

33. If the young surgeon should not feel quite equal to the ready performance of the various operations recommended, many of them requiring great anatomical knowledge and manual dexterity (and it is not to be expected that he should), he should avail himself of every opportunity which may offer of perfecting his knowledge.

The surgery of the British army should be at the height of the surgery of the metropolis; and the medical officers of that service should recollect, that the elevation at which it has arrived has been on many points principally due to the labors of their predecessors, during the war in the Peninsula. It is expected, then, that they will not only correct any errors into which their predecessors may have fallen, but excel them by the additions their opportunities will permit them to make in the improvement of the great art and science of surgery.

Book Notices.

A PRACTICAL TREATISE ON PHTHISIS PULMONALIS;—Embracing its Pathology, Causes, Symptoms, and Treatment. By L. M. Lawson, M. D., Professor of Clinical Medicine in the University of Louisiana, etc., etc. Cincinnati: Hickey, Mallory & Co. New York: S. S. & W. Wood. 1861.

In a former number of the *EXAMINER* we simply announced the publication of the above work, with a promise to note its contents more in detail at some future time. That promise we now intend to fulfil. The work of Dr. Lawson, is a good sized octavo volume of 557 pages, printed on plain type, and substantially bound. It is divided into four parts, viz: Pathology of Phthisis; Etiology of Phthisis; Semeiology of Phthisis; and Therapeutics of Phthisis. The first part embraces thirteen chapters, in which the author discusses at considerable length, the nature of the "tuberculous constitution;" the "precursory stages of Phthisis;" pathological anatomy of the tubercle, its distribution, its successive changes, and the coincident condition of the blood and secretions; the secondary and tertiary lesions, and the varieties of Phthisis. The chief appreciable elements that make the

"tuberculous constitution," are, irregular or imperfect digestion; feebleness in the mechanical movements of respiration; a peculiarly delicate or attenuated condition of the capillaries; and an unduly sensitive condition of the nervous system, more especially that part of it connected with organic life.

In reference to enfeebled respiratory movements, the author says: "The special and evident change which occurs, consists in *impaired power of expansion*. At a more or less early period, the muscles concerned in the active expansion of the chest seem to lose a portion of their power, and the chest expands imperfectly and irregularly. In consequence of this, the *ordinary* breathing capacity is diminished, the respiratory murmur becomes more or less weakened, and, at the same time, wavy and even jerking. These changes in the respiratory murmur are readily perceived by auscultation, and the diminished capacity may not only be inferred from the condition of respiration, but positively demonstrated by the movements of the chest. I have long been in the habit of observing these modifications of the respiratory function, and regard them as decidedly the most characteristic of all the signs supposed to indicate the existence of this state of the constitution."

The imperfect expansion of the chest here described by Dr. Lawson, together with the altered or "wavy" respiratory murmur, we have also noticed and studied carefully for several years. But, like Dr. Thompson, we have regarded it as indicative of the first step in the progress of actual tuberculosis, rather than as evidence of the mere tuberculous constitution. And we have felt the more confident in this view, from the fact that, we have almost invariably found the diminished expansion and wavy murmur, connected with increased vibration of voice and an appreciable diminution of resonance on percussion; signs of increased density, which could hardly result from simple feebleness of expansion.

In reference to the imperfect development of the capillaries and other structures, the author says: "The pulmonary system, embracing the areolar tissue and capillaries, partakes of the same defects that belong to these structures in the

tuberculous constitution generally; hence, it may be assumed that the capillaries of the lungs are comparatively weak and attenuated, and the areolar tissue coarse and inelastic."

The smaller size and diminished contractility of the pulmonary capillaries in the tuberculous constitution, have been pointed out by Mr. Ancell, and, at least, partially demonstrated by Dr. J. S. Campbell. If we grant this defective condition of the capillaries, coupled, as it is, with undue nervous excitability, or perhaps more properly, exalted organic susceptibility, we shall readily perceive why persons with this constitution are so sensitive to morbid impressions, and especially to atmospheric changes. We have arrested the attention of the reader, here, upon the very threshold of Dr. Lawson's work, simply because a clear comprehension of the nature of the tuberculous constitution, and the stage of predisposition, is of the utmost practical value. It is the time when we may adopt judicious hygienic regulations and remedial measures with a prospect of success.

Part II, embraces three chapters, namely: one on *hereditary* predisposition; one on "causes which may induce Phthisis, independent of an hereditary predisposition;" and one on the "pathological inducing causes of Phthisis." The second of these chapters is, perhaps, the most important one in the volume. In it the author discusses with much ability, the influence of climate and atmospheric conditions as causes of Phthisis. Copious statistical tables are adduced in reference to the prevalence of the disease in various countries. The same chapter includes a brief consideration of the influence of age, sex, and digestion.

Most of our readers will remember that the facts and statistics adduced by Drs. Forrey and Drake, led to the inference that climate exercised very little influence over the development of Phthisis. Their statistics were derived mostly from the registry of mortality at the various military stations. Dr. Lawson on comparing these with a careful analysis of the United States census returns, arrives at a different conclusion, which he states as follows:

"Taking all these facts into consideration, I am fully persuaded that consumption originates far less commonly in the

Southern than in the more Northern regions, and that it gradually but perceptibly diminishes from Maine to Florida. And without claiming absolute accuracy, I believe the tables compiled from the United States census are very near the truth, and will be found sufficient guides for practical purposes. Thus, the mortality from Phthisis, in the Eastern Division, may be set down at one in three hundred and twenty-eight; in the Middle Division, one in five hundred and nineteen; in the Western Division, one in eight hundred and eighty-two; and in the Southern Division, one in twelve hundred and eighty-seven. This shows the mortality from Phthisis to be three times greater in the Northern than in the Southern."

If we may rely on these deductions, the diminution in the prevalence of consumption from North to South, is by no means "gradual," but very rapid. And yet this rule is limited in its application; for Dr. Lawson, like most other writers, admits that many localities in high Northern latitudes are remarkably exempt from the prevalence of this disease; while on the other hand, some localities even between the *tropics* afford a very high ratio of its prevalence. Again, if we look to the details of the tables contained in Dr. Lawson's work, we shall find facts strongly opposed to the idea of any *gradual* diminution from North to South. Thus Maryland is represented to have *one* death from Phthisis for every 529 of her population, while Pennsylvania has only one in 641. Michigan gives one in 602, while Wisconsin gives only one in 1050. Louisiana one in 802, while Illinois gives only one in 975. The ratio in Georgia and Florida is represented as seventy-five per cent. higher than in South Carolina. Such facts show very clearly that other causes besides the ordinary elements of climate, exert a controlling influence over the development of tubercular diseases, and greatly lessen the value of all mere geographical statistics.

The Third Division of the work contains about 100 pages, devoted to the symptoms and physical signs accompanying the several stages of phthisis, with the differential diagnosis between it and inflammatory affections of the respiratory organs.

Part Fourth, on the Therapeutics of Phthisis, embraces three chapters. The first, is devoted to the treatment of Chronic Phthisis, in all its stages, together with its incidental complications.

The second, is devoted to the treatment of Inflammatory or Acute Phthisis. And the third, contains the author's views on the special questions of change of climate—sea voyages—Gestation—Topical Medication—Prognosis and Conclusions. In the precursory or forming stage of Phthisis, the author dwells with just emphasis, on the adoption of proper hygienic regulations. The choosing of such localities as afford pure and dry air; free muscular exercise out of doors; and a nutritious diet, are conditions absolutely *essential*, to afford even a chance of recovery.

As special remedial agents, in this stage, he recommends tonics, the most important of which are the preparations of iron; cod-liver oil; and in some cases, alcoholic stimulants.

In reference to the question of the *curability* of Phthisis, the author says: "The present state of science justifies the assumption that tubercular exudation is susceptible of absorption; and furthermore, that tubercular consolidations may liquify and return to the circulation, or be eliminated through the bronchial tubes, leaving, in either case, a condition of actual cure."

Again he says: "But the cases of *permanent* cure are sufficiently numerous to become an important element in prognosis, and to assure the physician that Phthisis is, to a certain extent, a curable disease. * * * * *

"The conditions which justify a favorable prognosis may be thus stated:

"1. When the tubercles are limited to one lung, are not very extensive, and have not been associated with inflammation, either as a sequence or an inducing cause.

"2. The general health remaining in a fair condition, without rapid emaciation, fever, or derangement of digestion.

"3. A hereditary tendency to phthisis being slight or entirely absent.

"4. The patient possessing naturally a good constitution, with a sanguineous or nervo-sanguineous temperament.

"5. The occupation being favorable, or at least, not of a character to induce Phthisis, or the patient being in a condition to make a change to a more suitable business.

"6. The patient having confidence in his medical attendant, and a willingness to submit to treatment, and the ability to avail himself of all incidental means and conditions favoring his recovery, including a change of climate.

"7. A cheerful and hopeful mental constitution, and a desire to contribute his share to the successful treatment."

In looking over the work of Dr. Lawson, we find some views relating both to the Pathology and Therapeutics of Phthisis, from which we are compelled to dissent, and should time permit, we shall certainly call the attention of our readers to them at no distant day.

Neither have we found in the pages of his work, as much evidence of original investigation, as we had hoped, and yet we have perused the work with pleasure and profit. It presents a pretty full and fair summary of existing knowledge on the subject of which it treats, and it will at once take its place as a standard work, which should be in the library of every practitioner.

FORTY-FOURTH ANNUAL REPORT ON THE STATE OF THE ASYLUM FOR THE RELIEF OF PERSONS DEPRIVED OF THE USE OF THEIR REASON.—Published by Direction of the Contributors, Third Month, 1861, Philadelphia.

ANNUAL REPORT OF THE BOARD OF TRUSTEES AND OFFICERS OF LONGVIEW ASYLUM, TO THE GOVERNOR OF THE STATE OF OHIO—For the year 1860. Columbus, Ohio.

Two neatly printed reports, of no special interest except to those directly concerned. They serve to show, however, the attention given to and interest in this branch of the healing art; and their statistical tables will be valuable to the future student or writer on this speciality. The Friend's Asylum is the first in this country, in which any marked improvement over the olden barbarities of the strait-jacket and solitary confinement in worse than prison-cells, was introduced in the treatment of Insanity; and its successful establishment marks a happy era in the history of the disease in this country. Dr. Worthington furnishes, in his report, nine statistical tables,

based on the conditions, occupations, etc., of some 1,430 patients.

The Longview Asylum, in actual operation only since February or March, 1860, is probably the largest, best constructed, and best arranged Insane Asylum in the country; the edifice, being of brick, six-hundred and twelve feet long, from three to five stories high, from forty-five to one hundred and seventy-six feet deep, exclusive of a long, low building continued back one hundred and seventy feet in the rear of the main building, and an infinitude of rotundas, chapels, wards, dining, reception, bath, bed, lumber, reading, library, servants', work, clothing, dead, and other rooms, of bowling-alleys and billiard-halls, air-ducts, dust and clothes-chutes, boilers, flues, stories, wings and corridors, gymnasia, etc., etc., etc., before which the details of the *Great Eastern* sink into insignificance. Dr. Langdon, the Superintendent and Physician, will find abundant employ for his well-known skill, energy and ability, in the conduct of this Institution, the existence of which, to quote his own words, is indeed not only a strong proof of the highest type of civilization in any community which originates and sustains such, but while effecting the more direct and obvious good results for which it is designed, it cannot fail to have an indirectly beneficial influence upon the community, by keeping constantly before it a prominent instance of far-sighted benevolence, in which the question of expense has been kept entirely subordinate to that of relieving in the most effectual manner, the affliction of a most unfortunate class.

REPORT OF THE BOARD OF HEALTH OF PHILADELPHIA FOR 1860.—Sanitary and Statistical. In accordance with an Act of the Legislature, approved March 8th, 1860, for the Registration of Births, Marriages and Deaths. Philadelphia: 1861.

Want of space, in the present number, alone prevents us making the receipt of this pamphlet, the occasion for some much-needed remarks on the barbarous condition of this most important subject in our State, *i. e.*, the registration-laws—the collection, under statute requirement and regulation, of those vital and mortuary statistics by which, alone, can the laws

governing human existence be determined. So far as we are informed, marriages only are made the subject of registration in Illinois; if there is any law relative to the registration of deaths or even for the issue of certificates as to cause, they have alike fallen into disuse; while births would seem to be too common-place occurrences to merit any attention. But, given the enactment of judicious registration-laws of births, marriages and deaths, and their faithful enforcement, it would fall short of the requirements of the progress of the age; and we need, and must have, in addition, a *registration of sickness*—a branch which, to the shame of the profession, be it said, is and always has been entirely neglected—as though it concerned us to know the chances of the one death which must come to each, more than the probabilities of the multitude of diseases, which might be guarded against by a thorough, accurate knowledge of their habitats, times of greatest prevalence and the attendant circumstances which favor their eduction. The first without the last, is much as though the Surgeon-General should give us only the list of killed, omitting all mention of the wounded, in his casualty list.

The Report is a valuable one, and will, in the future, be of much use as a basis of statistics of the greatest importance.

HAND-BOOK FOR THE MILITARY SURGEON:—Being a Compendium of the Duties of the Medical Officer in the Field, the Sanitary Management of the Camp, the Preparation of Food, etc.; with Forms for the Requisitions for Supplies, Returns, etc.; Diagnosis and Treatment of Camp Dysentery; and all the Important Points in *War Surgery*: Including Gun-Shot Wounds, Amputations, Wounds in the Chest, Abdomen, Arteries and Head, and the Use of Chloroform. By CHARLES S. TRIPLER, A. M., M. D., Surgeon United States Army. And GEORGE C. BLACKMAN, M. D., F. R. M. S., Professor of Surgery in the Medical College of Ohio, Surgeon to the Commercial Hospital, St. John's Hospital, etc. Cincinnati: Robert Clark & Co., Publishers. 1861.

The first, of numbers to be looked for in these days of the reign of *horrida Bella*, and of utter stagnation among the book publishers, in aught not directly appertaining to the tented field. In fact, this and its companion, elsewhere noticed, both confess to be solely the result of the energy of "the enterprising publishers," and not the mature outgrowth of their respective authors. Not, however, that this

work is not valuable and eminently opportune in its appearance; for the position of Dr. Tripler, U. S. A., and within a very few removes of the oldest surgeon in the army, is sufficient guarantee of actual worth, aside from the high endorsement of Prof. Blackman's name and active co-operation.

The substance of the work is an extended and revised form of a series of lectures on Military Surgery, which Dr. Tripler has very acceptably delivered in the Medical College of Ohio, during the past three years. These lectures cover the ground of *Duties of the Medical Officer—organization of field-hospitals—mode of procuring supplies—military hygiene—preservation of health of troops in campaign—camp dysentery—general history, character and treatment of gun-shot wounds, amputations, and wounds of the chest.* Prof. Blackman supplies the chapters on *wounds of the abdomen, head and arteries*; and the chapter on the *Use of Chloroform* is from Mr. Macleod's valuable work on the Crimean War.

A REPORT ON EPIDEMICS AND ENDEMICS.—CHOLERA.—By O. C. GIBBS, M. D., Frewsburg, N. Y. 1861.

We are indebted to the author for a copy of this, the second paper in his proposed work on the various diseases ranked under the heads of Epidemics and Endemics, and which, first giving historical sketches of the rise, progress and theories of this class of diseases, was to have been followed by a full consideration of the modes of *treatment, etc.*,—the whole forming a systematic work on the subject.

This paper is marked by the author's usual broad, philosophical grasp of thought and treatment,—comprehensive and practical in scope and detail, and furnishing a strong appeal of facts and able argument alike to the popular and professional mind. Rejecting the theory that this voiceless and invisible plague, the death-spawn of an Indian jungle, is a necessary part of the Divine economy—a theory worthy an African fetish or obi-worshipper, worthy the heathen estimate of the attributes of a heathen god,—Dr. Gibbs proceeds to show that it is the legitimate sequence of man's folly, arising from the vicissitudes of his physical and social conditions, preventable by his wisdom and amenable to common, universal

sanitary laws. Upon which premises he bases the dicta, that judicious and efficient sanitary regulations and the free use of disinfectants, as prophylactic measures, will doubtless be of more service than any treatment; that the administration of chlorine would form a part of all judicious medication, citing the fact that Dr. Mann, of Clerkenwell, exhibited chlorine water in nearly one hundred cases, with a loss of only two patients.

We regret, exceedingly, the necessity which causes Dr. Gibbs to forego his original intention, and trust he may soon find himself at liberty to continue his valuable contributions to a branch of our literature, than which few others have been more neglected—*i. e.*, Epidemiology and its complement.

A MANUAL OF MILITARY SURGERY, OR HINTS ON THE EMERGENCIES OF FIELD, CAMP AND HOSPITAL PRACTICE.—By S. D. GROSS, M. D., Professor of Surgery in the Jefferson Medical College, of Philadelphia. J. B. Lippincott & Co. Philadelphia: 1861.

This is a little 16mo of 186 pages, originally prepared for a Magazine-article, but afterwards changed to a manual for the instruction of surgeons to the volunteer forces of the army. The subjects treated of are the Duties of Surgeons, Hospitals, Stores, Wounds, Amputations and Resections, Diseases of Camp, Military Hygiene, Examination of Recruits, and Dietetic Formulæ. The work was evidently prepared in haste, and hence is not up to the usual standard of the writings of the distinguished author; but, from its portability, and the amount of concise information it contains, will, no doubt, be favorably received by the junior members of the army medical staff.

BAILLIERE BROTHERS announce the forthcoming publication of a PRACTICAL TREATISE ON MILITARY SURGERY, by Frank Hastings Hamilton, M. D., the eminent Surgeon and Author.

The work will embrace the Examination of Recruits, Hygiene, and Accommodation of Troops in Tents, Barracks, Huts, etc.; Hospitals; Preparations for the Field; Flying Ambulances, Litters, etc.; Gunshot Wounds, Amputations, Hospital Gangrene, Scurvy, etc.; United States Army Medical Regulations, with many other matters pertaining to Military Surgery.

Editorial.

THROUGH A MISCALCULATION, several articles, including our usual selections of medical intelligence, etc., already prepared, and some actually in type, have been crowded out.

WE SHALL BE PLEASED to have, from any of the Medical Staff of the Western Division of the Army, the records of their observations and experience, for publication in the EXAMINER, for the benefit and instruction of the profession.

THE *American Medical Times*, in a recent number transfers thirty of our Illinois physicians, *en masse*, to Michigan, by making the Illinois Medical Examining Board an appointment of the Legislature of Michigan. Illinois is still in the Union, Messieurs Editors *American Medical Times*, and not a peninsular dependency.

SUMMER SCHOOLS.—The Summer Course of the Medical Department of Lind University is still in progress, and the students are now enjoying the advantage of clinics in the Marine Hospital—making in all, eight clinics per week, at the present time, and six didactic lectures.

We are informed that the Summer Course of the Rush Medical College has been discontinued, for the past two or three weeks, nor do we learn of any intention to resume until the usual winter term.

CONTAGIOUSNESS OF DIPHTHERIA.—The recent death of Dr. Horace W. Adams, of Boston, from diphtheria, contracted from a patient, reminds us to suggest to our readers the propriety of placing on record the details of cases of such contagion, falling under their observation. Foreign exchanges mention the death of M. Gendron, of Château du Loire, France, from a similar cause,—the diphtheritic exudations having been received in his face and mouth, while performing the operation of tracheotomy on a patient under his care. Dr.

Frick, of Baltimore, also died, it may be remembered, in a similar manner, last year. The *Berkshire Medical Journal* regards an immediate thorough washing with some chlorinated solution, such as Labarraque's, or of diluted hydrochloric acid, as the means most likely to avert the risk of contagion, in case of receiving the false membrane on a mucous surface. The acidulated solution of chlorate of potash, after the formula and mode of use given on page 159 of the current volume of the *EXAMINER*, will no doubt, be found efficient in such cases.

OBITUARY—DR. LAWSON—DR. REESE.—The venerable head of the Medical Department of the United States Army, died suddenly of apoplexy, during the past month, at the advanced age of seventy-five. Surgeon-General LAWSON had held his position for over twenty years, and during his half century's experience of practice, had won for himself an enviable reputation as a successful physician, and an honorable gentleman and soldier. He died at Norfolk, whither he had gone for the benefit of his health.

—The well known editor of the *American Medical Gazette*, DAVID MEREDITH REESE, M. D., LL.D., died at his residence in New York city, on the morning of the 13th ult., of cardiac disease. Dr. Reese's name has been quite prominently before the profession in the forty years of an active career, during which he has filled chairs in the Washington University of Baltimore, in the Albany Medical College, N. Y., in the Castleton Medical College, Vt.; was for several years Resident Physician to Bellevue Hospital; Vice President of the American Medical Association; edited, and was author of several works of a professional and general character; and at the time of his death, held a professorship in the New York Medical College, and during the last session, delivered a full course of lectures on his branch—the Practice of Medicine. The *Am. Med. Times* says his most useful papers were his reports to the American Medical Association, the last of which, on *Medical Education*, it characterizes as replete with mature and well-digested views on this all-important subject.

SCURVY.—The remarks of Prof. Andrews on this subject (see page 259) derive additional interest from the fact that this disease is on the increase in the mercantile marine, and that in the United States Army, 2,803 cases of scurvy were reported as occurring, in the five years ending December, 1859, in an average number of less than fourteen thousand men.

Special Notices.

SUMMER TERM AT THE LIND.—*One recitation and one familiar explanatory lecture daily until the first Monday in October, on the following branches:—Materia Medica and Prac. Med.—Prof. J. H. Hollister. Anatomy and Surgery—Prof. R. N. Isham. Chemistry—Prof. F. Mahla. Obstetrics and Diseases of Women—Prof. W. H. Byford. Physiology and Pathology—Prof. H. A. Johnson. Clinical Surgery—Prof. E. Andrews. Clinical Medicine—Prof. N. S. Davis.*

Cliniques at Mercy Hospital, from 9 to 10 A. M., in the Medical Wards, service of Prof. DAVIS, on Tuesdays and Fridays; in the Surgical Wards, service of Prof. ANDREWS, on Mondays and Thursdays. At Marine Hospital, from 9 to 10 A. M., service of Prof. ISHAM, on Wednesdays and Saturdays.

At Chicago Dispensary, from 2 to 3 P. M., Medical and Surgical service, Profs. ANDREWS and BYFORD, on Wednesdays; Diseases of Women and Children, service Prof. BYFORD, on Saturdays.

Lectures on Military Surgery, by Prof. ANDREWS, in the Amphitheatre of the College, on Wednesday and Saturday afternoons, from 5 to 6.

Prof. BRAINARD lectures on Military Surgery, in the lower lecture-room of the Rush Medical College, on Tuesdays and Fridays, from 5 to 6 P. M.

PHYSICIANS, willing to propagate Vaccine symph, for the use of the volunteer forces of this State, can obtain a few charges by applying at the office of the EXAMINER, with the understanding that the increase is to be devoted to this purpose.

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To secure this object fully, we shall give, in each number, in addition to ordinary original articles, and selections on practical subjects, a faithful report of many of the more interesting cases presented at the Hospitals and College Cliniques. While aiming, however, to make the EXAMINER eminently practical, we shall not neglect either the scientific, social, or educational interests of the profession. It will not be the special organ of any one institution, society, or clique; but its columns will be open for well-written articles from any respectable member of the profession, on all topics legitimately within the domain of medical literature, science and education.

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